

## DHHS POLICIES AND PROCEDURES

---

<b>Section V:</b>	<b>Human Resources</b>
<b>Title:</b>	<b>Safety and Benefits</b>
<b>Chapter:</b>	<b>Lockout/Tagout Plan</b>
<b>Current Effective Date:</b>	<b>3/1/16</b>
<b>Revision History:</b>	<b>5/1/09, 4/1/04, 7/1/03, 3/1/16</b>
<b>Original Effective Date:</b>	<b>1/1/86</b>

---

### Purpose

The purpose of this policy is to establish a safe environment for employees when working on or with energized equipment. This policy applies to all DHHS staff working on or with energized equipment.

### Policy

It is the policy of DHHS to protect employees, patients, clients, residents, and any other individuals from hazards associated with energized equipment. This policy establishes lockout/tagout (LOTO) guidelines to ensure compliance with the Occupational Safety and Health Administration (OSHA) standards.

### Definitions

**Affected Person** - A staff member whose job requires them to operate or use a machine or piece of equipment on which servicing, maintenance, or repair work is, or may be, performed under LOTO procedures, or whose job requires them to work in an area where this type of servicing, maintenance, or repair is being performed.

**Authorized Person** – A designated staff member who is authorized to lockout and tagout a machine or piece of equipment so the servicing, maintenance, or repair can be performed, and who has received the required training to do so. All safety staff are considered Authorized Persons.

**Lockout/Tagout** – A safety procedure which is used to ensure that dangerous machines are properly shut off and not able to be started up again prior to the completion of maintenance or servicing work.

**Universal Waste Lamp** - the bulb or tube portion of an electric lighting device. A lamp is specifically designed to produce radiant energy, most often in the ultraviolet, visible, and infrared regions of the electromagnetic spectrum. Examples of common universal waste electric lamps include, but are not limited to, fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium, and metal halide lamps.

---

<b>Section V:</b>	<b>Human Resources</b>	<b>Page 1 of 12</b>
<b>Title:</b>	<b>Safety and Benefits</b>	
<b>Chapter:</b>	<b>Lockout/Tagout Plan</b>	
<b>Current Effective Date:</b>	<b>3/1/16</b>	

---

## **Roles and Responsibilities**

### **Safety Programs Manager**

The Safety Programs Manager (SPM) ensures that a written plan is in place to establish a lockout/tagout policy for hazardous energy control. The SPM reviews the policy periodically.

### **Safety Officer**

The Safety Officer is responsible for monitoring compliance with this policy, providing training, and conducting periodic inspections of multi-energy source equipment annually.

### **Manager/Supervisor**

The manager/supervisor identifies and reviews all machines and equipment under their control and operation, to determine what energy sources are involved with the operation of each, and to identify specific procedures involved in applying the LOTO procedures. This information is documented and kept on file.

### **DHHS Staff**

Staff are responsible for complying with this policy. Affected staff complete training and testing as required.

## **Implementation**

### **Program Scope**

The LOTO procedure applies to any source of the following types of energy

- Electrical
- Mechanical
- Hydraulic
- Pneumatic
- Chemical
- Thermal
- Other energy

### **Written Procedures**

All machines which operate by a single energy source will be locked and tagged out according to the general lockout/tagout procedures. Machinery (dual source) or equipment which does not meet all of the following elements must have specific written procedures for lockout/tagout:

- The machine or equipment has no potential for stored or residual energy or re-accumulation of stored energy after shut down.
- The machine or equipment has a single energy source which can be readily identified and isolated.

- The isolation and locking out of that energy source will completely de-energize and deactivate the machine or equipment.
- The machine or equipment is isolated from that energy source and locked out during servicing or maintenance.
- A single lockout device will achieve a locked-out condition.
- The lockout device is under the exclusive control of the authorized staff performing the servicing or maintenance.
- The servicing or maintenance does not create hazards for other staff.

### **Sequence of Lockout**

- Notify all affected persons that servicing or maintenance is required on a machine or equipment and that the machine or equipment will be shut down and locked out to perform the servicing or maintenance.
- The authorized person will refer to the machine's established shut down procedure and identify the type and magnitude of the energy utilized by the machine or equipment. The person will understand the hazards of the energy, and will know the methods to control the energy.
- The machine or equipment will be shut down by the normal stopping procedures (depress a stop button, open switch, close valves, etc.) if it is operating.
- Deactivate the energy isolating device(s) so the machine or equipment is isolated from the energy source(s).
- Properly place all lockout devices with the assigned individual lock(s) on all known energy sources.
- Dissipate or restrain all stored or residual energy (capacitors, springs, elevated machine members, rotating flywheels, hydraulic systems, air, gas, steam, or water pressure, etc.) by methods such as grounding, repositioning, blocking, bleeding down, etc., as outlined in the LOTO procedures for the equipment.
- Disconnect the equipment from the energy source(s) by first checking that no personnel are exposed, then verifying the isolation of the equipment by operating the push button or other normal operating control(s) or by testing to make certain that the equipment will not operate.

CAUTION: Operating control(s) must be returned to neutral or "off" position after verifying the isolation of the equipment.

- The machine or equipment is now locked out.

### **Restoring Equipment to Service**

When the servicing or maintenance is completed and the machine or equipment is ready to return to normal operation the following steps will be taken:

- Check the machine or equipment and the immediate area to confirm that nonessential items are removed and the machine or equipment components are operationally intact.
- Check the work area to ensure that all employees are safely positioned or removed from the area.
- Place all the controls in the neutral or in the “off” position.
- Remove the lockout devices and locks from the machine or equipment being re-energized.
- Check the machine or equipment to confirm it is operating properly and all safety requirements are met.
- Notify all affected persons that the servicing or maintenance is completed and the machine or equipment is ready to use.

### **Assignment of Lockout Devices**

- “Authorized” persons are provided with personal locks which will be used only for LOTO procedures.
- Each “authorized” staff member’s set of locks are keyed alike and that staff member’s key is placed only on the key ring assigned to that staff member. The key will not be placed on any other staff key ring.
- Emergency keys are also maintained by the supervisor and are available in an emergency situation.
- Each department with “authorized” personnel will ensure that those personnel are properly trained, and will provide those personnel with Lockout and Tagout devices that meet the requirements of this plan and 29 CFR 1910.147.

### **Lockout and Tagout Device Requirements**

- Locks, tags, chains, wedges, key blocks, adapter pins, self-locking fasteners, or other hardware shall be provided by the facility/division/office for isolating, securing or blocking of machines or equipment from energy sources. All lockout and tagout devices shall meet the requirements of this plan and those outlined in 29 CFR 1910.147 (c)(5).
- The lockout devices shall be made identifiable, in that it will indicate the identity of the employee applying the device. (This may be accomplished by attaching a tag indicating the identity of the employee applying the device.)
- Lockout and tagout devices shall be the only device(s) used for controlling energy, and shall not be used for other purposes.
- Tagout devices shall warn against hazardous conditions if the machine or equipment is energized and shall include a legend such as the following: “Do Not Start. Do Not Open. Do Not Close. Do Not Energize. Do Not Operate”.

### **Shift and Personnel Changes**

---

<b>Section V:</b>	<b>Human Resources</b>	<b>Page 4 of 12</b>
<b>Title:</b>	<b>Safety and Benefits</b>	
<b>Chapter:</b>	<b>Lockout/Tagout Plan</b>	
<b>Current Effective Date:</b>	<b>3/1/16</b>	

---

The continuity of staff protection will be ensured by the orderly transfer of lockout or tagout device protection between off-going and incoming employees. Upon initiating a shift or personnel change, the incoming employee will place their lockout or tagout devices on any machinery, equipment, or stored energy source that has been locked or tagged out. The off-going employee will then remove their lockout or tagout devices from the machinery, equipment, or stored energy source. This will help to minimize exposure to hazards from the unexpected energization or start-up of the machine or equipment or the release of stored energy.

### **Contractor Services**

Contractors performing tasks requiring lockout/tagout procedures will comply with the requirements of this plan and 29 CFR 1910.147. The contractor and Project Representative or Contracting Officer must inform each other of their respective lockout or tagout procedures. The Project Representative or Contracting Officer must ensure that his/her staff understand and comply with the restrictions and prohibitions of the outside contractor's energy control program.

### **Removal of Locks**

Each lockout or tagout device will be removed from each energy isolating device by the employee who applied the device. In the event a lock needs to be removed after hours, the Plant Operations Supervisor is contacted. The Plant Operations Supervisor will contact the appropriate employee to have the lock removed.

- **Exception to the rule:** When the authorized person who applied the device is not available to remove the LOTO device, the device may be removed under the direction of the supervisor, provided that specific procedures and training for such removal have been developed, documented, and incorporated into the LOTO program.
- In the event that a LOTO device needs to be removed, the supervisor will contact the person and inform them their device has been removed. The supervisor will designate a qualified staff member to remove the device. When the device has been removed, the device will be returned to the supervisor. This procedure will ensure the supervisor and the employee are aware that the device has been removed.

### **Exceptions to Lockout Application**

There are certain exceptions to the requirement of locking out machinery and equipment before servicing or performing maintenance and repair. These exceptions are found in OSHA 29 CFR Sections 1910.147 and 1910.331 through 1910.335. Exceptions which may affect departments are as follows:

- Tool changes and minor adjustments, and other minor servicing activities which take place during normal production operations are not required to be locked out if they are routine, repetitive, and integral to the use of the equipment for

- production, provided that the work is performed using alternative measures that provide effective protection (such as guards, safety light curtains, etc.)
- Operations involving transmissions and distribution systems for substances such as gas, steam, water, or petroleum products when they are performed on pressurized pipelines, provided it is demonstrated that (1) continuity of service is essential, (2) shutdown of the system is impractical, or (3) special procedures are followed and special equipment is used.
- De-energizing a machine, piece of equipment, or an electrical circuit will or may introduce additional or increased hazards or is infeasible due to equipment design or operational limitation. Examples of such exceptions are as follows:
  - A. The interruption of emergency alarm systems, the shutdown of hazardous locations, ventilation, or removal of illumination for an area.
  - B. Non-feasibility of de-energizing circuits due to equipment design or operational limitations, when testing (troubleshooting) electrical circuits or other problems involved with a specific piece of equipment.

**Electrical Safety Related Work Practices**

Due to the extreme hazards involved in working with electrical energy, specific requirements and procedures in relation to servicing, maintenance, and repair of electrical circuitry and devices must be followed.

- In addition to the general control of hazardous energy and LOTO policy and procedures outlined in the Plan and specified in OSHA 29 CFR 1910.147, all departments with staff who are required by their job assignment to work on or near exposed electrical energized parts must comply with OSHA 29 CFR Sections 1910.331 through 1910.335 and this Plan.
- In relation to working on or near exposed electrical energized parts, staff will be classed in one of two categories:
  - A. **Qualified Person:** A person who has certified training in the safety related work practices required by their respective job assignments due to working on or near exposed electrically energized parts.
  - B. **Unqualified Person:** Those persons with little or no such training who may work on, near, or with equipment or installations where exposure to any electrically energized part(s) may exist. (See training section for specific requirements.)
- Only **qualified** persons may work on electrical circuit parts or equipment that has not been de-energized under the procedure of this Plan and OSHA Sections 1910.147 or 1910.333(b)(locked out/tagged out).
- All departments within the institution who are required to perform work requiring “qualified persons” must designate those persons and ensure they have

received certified training. A list of those persons and their training must be kept on file and provided to the Safety Officer.

## Training

Training is the key to the understanding and implementation of this Plan and the standards of OSHA. The required training falls into two areas:

- That which concerns the portions of this Plan and OSHA standards that apply to the “general control of hazardous energy” as addressed in 29 CFR 1910.147. That required training is covered in 1910.147(c)(7).
- That which concerns specific work practices that are covered under the “Electrical Safety Related Work Practices” section of this Plan and addressed in 29 CFR 1910.331 through 1910.335. That required training is covered in 1910.332.
- For purposes of training, staff fall under one or more of the following categories as specified in this Plan and determined by their respective job assignments:
  - Authorized person
  - Affected person
  - Other person
  - Qualified person
  - Unqualified person
- Training required by this Plan and applicable OSHA standards is of the classroom or on-the-job type.
- The degree of training provided is determined by the risk to the person required to perform work covered by this Plan and OSHA standards, as determined by the department under whose control the operations are performed and in conjunction with the Safety Officer.
- At a minimum, the following training is required for each category of individual:
  - A. **Authorized Person:** An authorized person receives training in the recognition of applicable hazardous energy sources, the type and magnitude of the energy available in the workplace, and the methods and means required for energy isolation and control. All Safety staff are considered Authorized Person’s.
  - B. **Affected Person:** An affected person receives training in the purpose and use of the energy control procedure required by this Plan and OSHA standards.
  - C. **Other Persons:** Other persons receives training about the procedure of energy control and the prohibition relating to attempts to restart or re-energize machines, equipment, or circuitry that is locked out.
  - D. **Qualified Person:** A qualified person receives training in and must be familiar with the safety related work practices required by OSHA Sections 29 CFR 1910.331 through 1910.335 that pertain to this person’s respective job assignment. The qualified person is trained in the skills

and techniques to distinguish exposed live parts from other parts of the electrical equipment, how to determine the nominal voltage of exposed live parts, the clearance distance specified in OSHA 1910.331C), and the responding voltages to which the qualified person will be exposed.

- E. **Unqualified Person:** An unqualified person is trained in and must be familiar with any electrically related safety practices which are necessary for his/her safety as determined by the controlling department in conjunction with the Safety Officer.

### **Retraining**

Retraining/updated training is provided for all categories of personnel at least annually or whenever there is a change in job assignments, machine equipment, or process that presents a new hazard, or change in energy control procedures.

Additional retraining/update training is provided whenever an inspection that is made under the provisions of this plan reveals that the deviations or inadequacies in the control procedure or the knowledge of both staff and inmate does not meet the requirements of this plan.

### **Periodic Inspections**

The Safety Department ensures that a documented periodic inspection of the energy control procedures is conducted at least annually (see Attachment B), and that the inspection is performed by an authorized employee (All safety staff are considered Authorized Person's) other than the one(s) practicing the energy control procedure being inspected.

The inspection is done to ensure the procedures and requirements of the plan and the standards of 29 CFR Sections 1910.147 and 1910.331 through 1910.335 are being followed and to correct any deviations or inadequacies identified. Energy control procedures are also monitored through the monthly inspection and Operational Review processes.

### **References**

- OSHA The Control of Hazardous Energy, 29CFR 1910.147, [https://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=STANDARDS&p\\_id=9804](https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9804)
- OSHA Electrical, 29CFR 1910.331, [https://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=STANDARDS&p\\_id=9908](https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9908)
- OSHA Electrical, Safeguards for Personnel Protection, 29CFR 1910.335, [https://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=STANDARDS&p\\_id=9912](https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9912)





## LOCKOUT/TAGOUT Program Review Checklist

*This checklist must be completed annually as a periodic review of the Energy Control Program. The completed form is kept on file by the Safety Officer.*

<b>Division:</b>	<b>Facility:</b>	<b>Department:</b>
<b>Building:</b>	<b>Room/Area:</b>	<b>Supervisor:</b>
<b>Assessment Completed by:</b>		<b>Date:</b>

A. Lockout/Tagout Program	Yes	No	N/A	Comments
1. Written program complete				
2. Training complete and documented				
3. Periodic inspections performed and documented				
<b>B. Energy Control Procedures</b>				
1. Where necessary, equipment specific lockout procedures established and documented				
2. General lockout procedures established				
3. Procedures established for removal of lockout devices				
4. Procedures established for tagout				
5. Protective materials and hardware available				
<b>C. Requirements for Special Situations</b>				
1. Procedures for testing or repositioning equipment established				
2. Procedures for working with outside contractors established				
3. Procedures for group Lockout/Tagout established				
4. Procedures for shift or personnel change established				



# LOCKOUT/TAGOUT Program Review Checklist

## Keys to Lockout/Tagout Checklist

### A. Lockout/Tagout Program

1. A model written program is available.
2. Training is required for all workers authorized to apply Lockout/Tagout devices. Training is also required for workers who are affected by the Lockout/Tagout activities of authorized workers.
3. An annual review of energy control procedures must be completed and documented by an authorized worker other than the workers using the procedures.

### B. Energy Control Procedures

1. For certain types of equipment, specific written procedures must be developed and documented. Information on what types of equipment this is necessary for is available in the model written program and from EHS.
2. General Lockout procedures, spelled out in the model written program, must be followed for all equipment.
3. Procedures for removal of locks and tags are available in the model written program.
4. When equipment is not designed to accept a Lockout devices, Tagout may be used. Tagout must provide the same level of protection as Lockout procedures. Additional training and oversight may be necessary. Assistance in developing Tagout procedures is available in the model written program.
5. Standardized Lockout/Tagout devices must be used for all procedures.

### C. Requirements for Special Situations

1. Whenever equipment must be tested or repositioned, special procedures must be used for the removal and replacement of Lockout/Tagout devices. Sample procedures are available in the model written program.
2. When appropriate, workers and outside personnel must discuss and compare Lockout/Tagout procedures. Consult the model written program for additional information.
3. Group Lockout/Tagout procedures must provide the same level of protection as individual procedures. Information is available in the model written program.
4. The continuity of Lockout/Tagout protection must be ensured during shift or personnel changes. Examples of how this could be done are provided in the model written program.



## LOCKOUT/TAGOUT Periodic Inspection Checklist

*This inspection/certification form must be completed annually for Authorized Employees involved in Energy Control Procedures for multi-energy source equipment. It must be maintained on-site, and is to be completed based on the witnessed demonstration of the Lockout/Tagout (LOTO) procedures on the equipment or machinery by Authorized Employees.*

<b>Division:</b>	<b>Facility:</b>
<b>Equipment/Machine:</b>	<b>Locked Out?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Assessment Completed by:</b>	<b>Date:</b>

**Authorized Employees Observed:**

1.	6.
2.	7.
3.	8.
4.	9.
5.	10.

PERIODIC INSPECTION QUESTIONS	YES	NO
Was the written Energy Control Procedure (ECP) present during the inspection? (inspection cannot be performed without the written ECP present)		
Have the Authorized Employees received appropriate training within the past year?		
If training was completed, is documentation available?		
Is the ECP that was used effective to provide full employee protection during the LOTO procedure? (i.e. all sources of energy were disabled)		
Has there been a change in equipment/machinery that presents a new hazard or a change in the ECP?		
Did the Authorized Employees demonstrate their roles and responsibilities under the LOTO Program?		
Are the tags being used durable, legible, understandable to all Affected and Authorized Employees and securely attached?		
Was the ECP performed correctly?		



# LOCKOUT/TAGOUT Periodic Inspection Checklist

*Provide detailed information if any deviations/inadequacies were identified requiring corrective action:*

*If no deviations or inadequacies were identified during the inspection the inspection can be completed and certified. This form requires two signatures; the signature of the individual who performed the inspection and the signature of the individual certifying that the process was completed.*

<b>SIGNATURES</b>	
<b>Inspector:</b>	
Signature:	Printed Name:
Title:	Date:
<b>Certified by:</b>	
Signature:	Printed Name:
Title:	Date: