

# **Template For Control of Hazardous Energy Procedure (Lockout/Tagout)**

**In accordance with Wisconsin Safety and  
Professional Services Chapter SPS 332  
and OSHA 29 CFR 1910.147**

Note: This document provides an over view of OSHA's Control of Hazardous Energy standard along with a template for a basic written Lockout/Tagout procedure. Every workplace is unique and employers will need to consult the applicable OSHA standard when developing a program for their facility. Contact your regional State of Wisconsin Occupational Safety Inspector to request assistance in developing a customized program.

## **BACKGROUND**

The following template provides the starting point for employers to develop a lockout/tagout (LOTO) program. Some of the main aspects of a LOTO program include:

- Only Authorized employees may perform LOTO procedures, and aside from a few exceptions, must lockout and tagout machinery/equipment before performing any servicing or maintenance
- A specific, written lockout procedure should be developed for each piece of equipment or machinery, however, some exceptions may include:
  - Cord and plug connected electrical equipment that may be isolated or effectively controlled by unplugging the equipment from the energy source provided that the disconnected plug remains in control of the employee performing the service or maintenance
  - Minor tool changes and adjustments which take place during normal production operations where alternative, equally effective protection from hazardous energy is used-**However, LOTO is required if:**
    - An employee is required to remove or bypass a guard or other safety device
    - An employee is required to place any part of their body into an area on a machine or piece of equipment where work is actually performed upon the material being processed (i.e. point of operation) or where an associated danger zone exists during a machine operating cycle

Other LOTO Program Elements Include:

- Identifying authorized and affected employees
- Issuing LOTO locks and tags dedicated solely for LOTO procedures
- Providing for continuity of LOTO protection between shift changes
- Establishing procedures for: group LOTO; tagout if locks cannot be applied; emergency or abandoned lock/tag removal; and, Out of Service events when machines/equipment will not be operable for extended periods of time
- Notifying contractors of LOTO procedure
- Conducting a periodic review of energy control procedures
- Initial and annual training along with re-training when changes occur in assignments, equipment, processes, procedures or a review indicates a lack of knowledge

## ATTACHMENT A

### **The Control of Hazardous Energy (Lockout/Tagout) Procedure Table of Contents**

- I. Objective
- II. Assignment of Responsibility
- III. Procedures
  - A. Preparation for Lockout/ Tagout
  - B. Sequence of Lockout/ Tagout
  - C. Release from Lockout/Tagout
  - D. Service or Maintenance Involving More than One Person
  - E. Removal of an Authorized Employee's Lockout/Tagout by the Employer
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  - B. Equipment Specific LOTO Procedure Form
  - C. List of Authorized LOTO Personnel Form
  - D. Additional Lock and Tag Information
  - E. Periodic Review Templates

# Lockout/Tagout Procedure

## I. OBJECTIVE

The objective of this program is to identify and establish a means of control to prevent the release of stored energy or the unintentional energizing/starting of machinery or equipment which could harm employees. This program establishes performance requirements for the control of hazardous energy, including:

- Establishing a safe and controlling means of shutting down machinery and equipment.
- Prohibiting unauthorized personnel from starting machinery or equipment while it is being serviced.
- Establishing responsibility for implementing and controlling lockout/tagout procedures.
- Requiring that only approved hardware (locks, tags, and fastening devices) will be used in the lockout/tagout procedure.

## II. ASSIGNMENT OF RESPONSIBILITY

- [*Job Title*] is responsible for implementing the lockout/tagout program.
- [*Job Title(s)*] is responsible for compiling a list of all equipment that requires a written Equipment-specific LOTO procedure. See Attachment A
- [*Job Title(s)*] is responsible for completing the written Equipment-specific LOTO procedures. See Attachment B
- [*Job Title(s)*] is responsible for identifying “Authorized” and “Affected” employees. See Attachment C
- [*Job Title*] is responsible for issuing dedicated locks and tags. See Attachment D for guidance on lock and tag specifications
- [*Job Title*] will be responsible for enforcing the program and ensuring compliance with the procedures in their departments.
- [*Job Title*] is responsible for monitoring the compliance of this procedure and will conduct the annual inspection and certification of the authorized employees.
- Only Authorized employees are permitted to perform established lockout/tagout procedures.
- All other employees are prohibited from restarting or re-energizing machines or equipment that is locked or tagged out.

## III. PROCEDURES

### A. Preparation for Lockout/ Tagout

Review the machine or equipment specific LOTO procedure to locate and identify all energy isolating devices. More than one hazardous energy source and/ or means of disconnect may be present.

### **B. Sequence of Lockout/ Tagout**

1. Notify all affected employees that a LOTO procedure will be utilized and why.
2. If the machine or equipment is operating, shut it down by the normal stopping procedure. Additionally, ensure all stored energy is dissipated or properly restrained.
3. Lockout/tagout the energy source(s) as identified in the machine/equipment LOTO procedure.
4. Press the start button to ensure all energy sources have been locked out.
5. Return controls to their off or safest position.
6. The equipment is now locked/tagged out.

### **C. Release from Lockout/Tagout**

1. After servicing/maintenance have been completed and the equipment is ready for normal production operations, check the area around machines or equipment to ensure no personnel are in the machine/equipment's operating zone.
2. Remove all tools from machine/equipment.
3. Replace all guards on machine/equipment.
4. Remove all lockout/tagout devices from energy isolating sources.
5. Restore energy to the machine/equipment.

### **D. Service or Maintenance Involving More than One Person**

When servicing or maintenance is performed by more than one person, each authorized employee shall place their lock/tag on the energy isolating source(s). When an energy-isolating device cannot accept multiple locks and tags a multiple lockout hasp, gang box or other group lockout mechanism may be used. When each employee no longer needs to maintain lockout protection, that employee will remove his or her assigned lock and tag from the group lockout.

An authorized employee will be responsible for all of the other authorized employees working under the protection of a group lockout device. The authorized employee with assigned group lockout control responsibility ensures the continuity of protection when shift changes occur during a lockout operation and confirms the absence of hazardous situations for individual group members before ending the group lockout operation.

*For OSHA guidance on group LOTO including complex LOTO operations that involve multiple employees and numerous energy isolating devices see CPL-02-00-147 (02/18/08), Chapter 4 Group Lockout/Tagout. A link to the document is provided below.*

[https://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=DIRECTIVES&p\\_id=3809](https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=DIRECTIVES&p_id=3809)

### **E. Removal of an Authorized Employee's Lockout/Tagout by the Employer**

Locks/tags will only be removed in cases where the authorized employee who applied it is not available. When the authorized employee who applied the lockout/tagout device is not available to remove it, that device may be removed by the [Job Title] or their designee by following the specific procedure.

*Each location must develop written procedures that comply with 29 CFR 1910.147(e)(3). Emergency procedures for removing lockout/tagout should include the following:*

1. Making all reasonable efforts to contact the authorized employee to inform them that their LOTO device has been removed.
2. Verification by the employer that the authorized employee who applied the LOTO device is not at the facility by checking time cards, parking lot, radio announcement, etc.
3. A thorough inspection of the machine or device shall be made by the [Job Title(s)] to confirm that the machine or equipment components are operationally intact.
4. [Job Title(s)] or designee shall remove the LOTO device, providing that they have determined that the starting up of the machine/equipment will not endanger other personnel.
5. Informing and providing the employee who's locks/tags were removed with replacement locks/tags.

### **F. Shift or Personnel Changes**

In the case of shift or personnel changes, a changeover period will be established so that the authorized employees may exchange their assigned locks/tags. Authorized personnel

assuming control of lockedout/taggedout machines/equipment will be fully briefed in the scope and stage of the work by those whom are being relieved.

### **G. Procedures for Outside Personnel/Contractors**

The [Job Title] or their designee will inform all outside personnel/ contractors of the elements of this procedure and ensure work efforts covered by this procedure are fully coordinated and complied with.

### **H. Training and Communication**

Each Authorized employee who will be utilizing lockout/tagout procedures will be trained in the recognition of applicable hazardous energy sources; the types and magnitude of energy available in the work place; and, the methods and means necessary for energy isolation and control.

Employees not authorized to perform LOTO procedures are referred to as “affected” employees. All affected employees shall be instructed in the purpose and use of the LOTO procedure. Instruction for affected employees will also include the prohibition of:

- Attempts to restart or re-energize machines or equipment that have been locked/tagged out by an authorized employee
- The use or removal of LOTO equipment by non-authorized employees

Retraining shall be provided for all authorized and affected employees whenever there is a change in their job assignment; machines, equipment or processes that present a new hazard; or the LOTO procedure.

Training will be certified by documenting the date the training occurred and the signatures of the employees who were present.

### **I. Periodic Review**

*[Attachment E provides a template for documenting periodic reviews]*

The effectiveness of the LOTO program will be evaluated at least annually. The date of review will be documented and maintained as part of this program until the next review replaces it.

In order to ensure the lockout/tagout program is being properly utilized, random reviews and planned visual observations will be conducted by [Job Title] or their designee. Specific areas to be noted are:

1. Whether the steps in the energy control procedures are being followed.

2. Whether the employees involved know their responsibilities under the procedures.
3. Whether the procedures are adequate to provide the necessary protection and any changes that should be implemented.
4. The inspection will be made by an authorized employee other than the one implementing the energy control procedures being inspected. [*It can be helpful to have another department perform the review*].
5. If deviations are identified or if employees do not clearly understand the procedures, retraining will be conducted to the extent that procedures are properly understood and followed.
6. If problems with procedures are encountered, the process will be reevaluated and appropriate changes implemented.
7. The reviews will be done on an individual basis, but any corrective actions identified will be communicated to all Authorized employees.
8. Where a tagout system is used, the review will be extended to include applicable affected persons. [*With tags, the role of the affected employee is greater in avoiding accidental or inadvertent activation of the equipment or machinery being serviced*].





# ATTACHMENT B

## Equipment Specific LOTO Procedure

Equipment:	Model #:	Serial #:
Location:	Scope of Work:	
Prepared By:	Date:	Signature:

**STEP 1: Identify energy sources:** (check all that apply)

Identify all energy sources	Identify types of stored or residual energy
Electrical: <input type="checkbox"/> Pneumatic <input type="checkbox"/> Hydraulic <input type="checkbox"/> 110V <input type="checkbox"/> Mechanical <input type="checkbox"/> Other: - Specify: _____ <input type="checkbox"/> 220/440V <input type="checkbox"/> Chemical _____ <input type="checkbox"/> Other: (list) <input type="checkbox"/> Thermal _____	<input type="checkbox"/> Stored electrical (capacitors) <input type="checkbox"/> Hydraulic/Pneumatic <input type="checkbox"/> Pressured Line <input type="checkbox"/> Suspended equipment <input type="checkbox"/> Spring <input type="checkbox"/> Other: _____
Is there a possibility of energy re-accumulation? <input type="checkbox"/> No <input type="checkbox"/> Yes – Explain: _____	

**STEP 2: Shut down equipment following normal procedures**

(Consult equipment manual, manual location: \_\_\_\_\_ ; or contact supervisor if shutdown instructions are needed)

**STEP 3: Complete the following for each energy source** (If more space is needed to document other energy sources, please list on back):

**A. Isolate energy source (list location):**

Method:				
<input type="checkbox"/> Shut off manual electric circuit breakers	<input type="checkbox"/> Disconnect switches	<input type="checkbox"/> Remove fuses	<input type="checkbox"/> Block hydraulic/pneumatic	<input type="checkbox"/> Bleed pressurized line
<input type="checkbox"/> Valves: <input type="checkbox"/> Close <input type="checkbox"/> Open	<input type="checkbox"/> Ground electrical	<input type="checkbox"/> Remove batteries	<input type="checkbox"/> Release spring tension	<input type="checkbox"/> Reposition suspended equipment
<input type="checkbox"/> Other – Specify: _____				

**Apply lockout devices:**

<input type="checkbox"/> Lockout lock with identifier	<input type="checkbox"/> Gate valve cover	<input type="checkbox"/> Fuse lockout	<input type="checkbox"/> Chain and lock	<input type="checkbox"/> Lockout hasp	<input type="checkbox"/> Block	<input type="checkbox"/> Blank flange
<input type="checkbox"/> Ball valve lockout	<input type="checkbox"/> Pneumatic port valve lockout	<input type="checkbox"/> Wall switch lockout	<input type="checkbox"/> Cable and lock	<input type="checkbox"/> Circuit breaker cover-up	<input type="checkbox"/> Wedge	<input type="checkbox"/> Slip blind
<input type="checkbox"/> Butterfly valve lockout	<input type="checkbox"/> Inline lockout valve	<input type="checkbox"/> Plug lockout	<input type="checkbox"/> Power cord lock	<input type="checkbox"/> Lower item down to lowest state	<input type="checkbox"/> Pins	<input type="checkbox"/> None required
<input type="checkbox"/> Other: _____						
<input type="checkbox"/> Tag and tie – describe reason lock cannot be used: _____						
<input type="checkbox"/> Verify Zero energy state by: _____						

**B. Isolate energy source (list location):**

Method:				
<input type="checkbox"/> Shut off manual electric circuit breakers	<input type="checkbox"/> Disconnect switches	<input type="checkbox"/> Remove fuses	<input type="checkbox"/> Block hydraulic/pneumatic	<input type="checkbox"/> Bleed pressurized line
<input type="checkbox"/> Valves: <input type="checkbox"/> Close <input type="checkbox"/> Open	<input type="checkbox"/> Ground electrical	<input type="checkbox"/> Remove batteries	<input type="checkbox"/> Release spring tension	<input type="checkbox"/> Reposition suspended equipment
<input type="checkbox"/> Other – Specify: _____				

**Apply lockout devices:**

<input type="checkbox"/> Lockout lock with identifier	<input type="checkbox"/> Gate valve cover	<input type="checkbox"/> Fuse lockout	<input type="checkbox"/> Chain and lock	<input type="checkbox"/> Lockout hasp	<input type="checkbox"/> Block	<input type="checkbox"/> Blank flange
<input type="checkbox"/> Ball valve lockout	<input type="checkbox"/> Pneumatic port valve lockout	<input type="checkbox"/> Wall switch lockout	<input type="checkbox"/> Cable and lock	<input type="checkbox"/> Circuit breaker cover-up	<input type="checkbox"/> Wedge	<input type="checkbox"/> Slip blind
<input type="checkbox"/> Butterfly valve lockout	<input type="checkbox"/> Inline lockout valve	<input type="checkbox"/> Plug lockout	<input type="checkbox"/> Power cord lock	<input type="checkbox"/> Lower item down to lowest state	<input type="checkbox"/> Pins	<input type="checkbox"/> None required
<input type="checkbox"/> Other: _____						
<input type="checkbox"/> Tag and tie – describe reason lock cannot be used: _____						
<input type="checkbox"/> Verify Zero energy state by: _____						

## ATTACHMENT B

### Equipment Specific LOTO Procedure Cont.

Equipment: _____	Model #: _____	Serial #: _____
Location: _____	Scope of Work: _____	
Prepared By: _____	Date: _____	Signature: _____

**C. Isolate energy source (list location):**

**Method:**

- |   |  |   |  |   |
|---|--|---|--|---|
| <input type="checkbox"/> Shut off manual electric circuit breakers                            | <input type="checkbox"/> Disconnect switches | <input type="checkbox"/> Remove fuses     | <input type="checkbox"/> Block hydraulic/pneumatic | <input type="checkbox"/> Bleed pressurized line         |
| <input type="checkbox"/> Valves: <input type="checkbox"/> Close <input type="checkbox"/> Open | <input type="checkbox"/> Ground electrical   | <input type="checkbox"/> Remove batteries | <input type="checkbox"/> Release spring tension    | <input type="checkbox"/> Reposition suspended equipment |
| <input type="checkbox"/> Other – Specify: _____   |  |   |  |   |

**Apply lockout devices:**

- |   |   |  |  |  |                                |  |
|---|---|--|--|--|--------------------------------|--|
| <input type="checkbox"/> Lockout lock with identifier                             | <input type="checkbox"/> Gate valve cover             | <input type="checkbox"/> Fuse lockout        | <input type="checkbox"/> Chain and lock  | <input type="checkbox"/> Lockout hasp                    | <input type="checkbox"/> Block | <input type="checkbox"/> Blank flange  |
| <input type="checkbox"/> Ball valve lockout                                       | <input type="checkbox"/> Pneumatic port valve lockout | <input type="checkbox"/> Wall switch lockout | <input type="checkbox"/> Cable and lock  | <input type="checkbox"/> Circuit breaker cover-up        | <input type="checkbox"/> Wedge | <input type="checkbox"/> Slip blind    |
| <input type="checkbox"/> Butterfly valve lockout                                  | <input type="checkbox"/> Inline lockout valve         | <input type="checkbox"/> Plug lockout        | <input type="checkbox"/> Power cord lock | <input type="checkbox"/> Lower item down to lowest state | <input type="checkbox"/> Pins  | <input type="checkbox"/> None required |
| <input type="checkbox"/> Other: _____   |   |  |  |  |                                |  |
| <input type="checkbox"/> Tag and tie – describe reason lock cannot be used: _____ |   |  |  |  |                                |  |
| <input type="checkbox"/> Verify Zero energy state by: _____                       |   |  |  |  |                                |  |

**D. Isolate energy source (list location):**

**Method:**

- |   |  |   |  |   |
|---|--|---|--|---|
| <input type="checkbox"/> Shut off manual electric circuit breakers                            | <input type="checkbox"/> Disconnect switches | <input type="checkbox"/> Remove fuses     | <input type="checkbox"/> Block hydraulic/pneumatic | <input type="checkbox"/> Bleed pressurized line         |
| <input type="checkbox"/> Valves: <input type="checkbox"/> Close <input type="checkbox"/> Open | <input type="checkbox"/> Ground electrical   | <input type="checkbox"/> Remove batteries | <input type="checkbox"/> Release spring tension    | <input type="checkbox"/> Reposition suspended equipment |
| <input type="checkbox"/> Other – Specify: _____   |  |   |  |   |

**Apply lockout devices:**

- |   |   |  |  |  |                                |  |
|---|---|--|--|--|--------------------------------|--|
| <input type="checkbox"/> Lockout lock with identifier                             | <input type="checkbox"/> Gate valve cover             | <input type="checkbox"/> Fuse lockout        | <input type="checkbox"/> Chain and lock  | <input type="checkbox"/> Lockout hasp                    | <input type="checkbox"/> Block | <input type="checkbox"/> Blank flange  |
| <input type="checkbox"/> Ball valve lockout                                       | <input type="checkbox"/> Pneumatic port valve lockout | <input type="checkbox"/> Wall switch lockout | <input type="checkbox"/> Cable and lock  | <input type="checkbox"/> Circuit breaker cover-up        | <input type="checkbox"/> Wedge | <input type="checkbox"/> Slip blind    |
| <input type="checkbox"/> Butterfly valve lockout                                  | <input type="checkbox"/> Inline lockout valve         | <input type="checkbox"/> Plug lockout        | <input type="checkbox"/> Power cord lock | <input type="checkbox"/> Lower item down to lowest state | <input type="checkbox"/> Pins  | <input type="checkbox"/> None required |
| <input type="checkbox"/> Other: _____   |   |  |  |  |                                |  |
| <input type="checkbox"/> Tag and tie – describe reason lock cannot be used: _____ |   |  |  |  |                                |  |
| <input type="checkbox"/> Verify Zero energy state by: _____                       |   |  |  |  |                                |  |

**E. Isolate energy source (list location):**

**Method:**

- |   |  |   |  |   |
|---|--|---|--|---|
| <input type="checkbox"/> Shut off manual electric circuit breakers                            | <input type="checkbox"/> Disconnect switches | <input type="checkbox"/> Remove fuses     | <input type="checkbox"/> Block hydraulic/pneumatic | <input type="checkbox"/> Bleed pressurized line         |
| <input type="checkbox"/> Valves: <input type="checkbox"/> Close <input type="checkbox"/> Open | <input type="checkbox"/> Ground electrical   | <input type="checkbox"/> Remove batteries | <input type="checkbox"/> Release spring tension    | <input type="checkbox"/> Reposition suspended equipment |
| <input type="checkbox"/> Other – Specify: _____   |  |   |  |   |

**Apply lockout devices:**

- |   |   |  |  |  |                                |  |
|---|---|--|--|--|--------------------------------|--|
| <input type="checkbox"/> Lockout lock with identifier                             | <input type="checkbox"/> Gate valve cover             | <input type="checkbox"/> Fuse lockout        | <input type="checkbox"/> Chain and lock  | <input type="checkbox"/> Lockout hasp                    | <input type="checkbox"/> Block | <input type="checkbox"/> Blank flange  |
| <input type="checkbox"/> Ball valve lockout                                       | <input type="checkbox"/> Pneumatic port valve lockout | <input type="checkbox"/> Wall switch lockout | <input type="checkbox"/> Cable and lock  | <input type="checkbox"/> Circuit breaker cover-up        | <input type="checkbox"/> Wedge | <input type="checkbox"/> Slip blind    |
| <input type="checkbox"/> Butterfly valve lockout                                  | <input type="checkbox"/> Inline lockout valve         | <input type="checkbox"/> Plug lockout        | <input type="checkbox"/> Power cord lock | <input type="checkbox"/> Lower item down to lowest state | <input type="checkbox"/> Pins  | <input type="checkbox"/> None required |
| <input type="checkbox"/> Other: _____   |   |  |  |  |                                |  |
| <input type="checkbox"/> Tag and tie – describe reason lock cannot be used: _____ |   |  |  |  |                                |  |
| <input type="checkbox"/> Verify Zero energy state by: _____                       |   |  |  |  |                                |  |





## ATTACHMENT D

### **Additional Lock and Tag Information**

- Issue an individually keyed lock (or set of locks if there are multiple power sources) to “authorized” employees for the exclusive purpose of locking out equipment. There must be only one key for each lock.
- Ensure that locks and tags are identifiable, durable, not affected by weather or chemical elements and only used for controlling energy
- If more than one person is working on the same piece of equipment, each person must place their own lock or follow group lockout procedures when applicable.
- Use tags and other means to “lock” out equipment only when no other methods can be utilized
- Tagout devices are located with locks to warn against hazardous conditions such as “Do Not Start, Do Not Open, etc.”

ATTACHMENT E  
 Periodic Review Templates  
**Lockout - Tagout (LOTO)**  
**Training Assessment Checklist and Annual Inspection**

<b>Department:</b>	<b>Date:</b>
<b>Location:</b>	
<b>Equipment:</b>	
<b>Employee:</b>	

	Yes	No
1 A) Has there been a change in job assignments, machines, equipment or processes?		
B) If so, have employees been re-trained when job assignments, machines, equipment or processes have changed?		
2) Are the locks uniquely identified, uniquely keyed, and only used for the purpose of LOTO?		
3) Does the tag used with the lock identify the worker servicing the machine or equipment?		
4) Has equipment and machine-specific LOTO procedures been documented in writing?		
5) Does the employee know where the written LOTO procedures are located?		
6) Does the employee notify affected employees and all other employees in the area before starting the LOTO procedure?		
7) Can the employee identify all hazardous energy sources and associated hazards for the equipment or machine to be locked out?		
8) Does the employee follow the proper LOTO procedures for de-energizing the equipment or machine?		
9) Does the employee demonstrate the proper steps for the placement, removal and transfer of LOTO devices?		
10) Does the employee use the proper methods to verify the equipment or machine was de-energized?		
11) Before releasing the machine or equipment from LOTO, does the employee do the following:		
A) Inspect the machine or equipment to ensure it is operationally intact?		
B) Ensure that all employees are safely positioned?		
C) Notify affected employees and all other employees in the area that the LOTO devices have been removed?		
12) If you answered "No" to questions 2-11, has the employee been re-trained?		

ATTACHMENT E  
Periodic Review Templates

**Lockout - Tagout (LOTO) Annual Inspection**

**Authorized Employees Observed**

NAME	Location/Machine Observed

**Deficiencies Observed & Corrective Actions:**

**Inspected By** \_\_\_\_\_

**Date** \_\_\_\_\_