



# Guide to Implementing a Successful Lockout/Tagout (LOTO) Program

---

**Controlling Hazardous Energies**

**Lockout/Tagout (LOTO)  
Compliance Program**



## TABLE OF CONTENTS

<b>WHAT IS LOCKOUT/TAGOUT (LOTO)?</b>	<b>3</b>
<b>BENEFITS</b>	<b>3</b>
<b>IMPACTS</b>	<b>3</b>
<b>RESPONSIBILITIES AND OBLIGATIONS</b>	<b>4</b>
<b>HOW TO COMPLY?</b>	<b>6</b>
① <b>Preparing</b>	<b>6</b>
② <b>Identifying equipment to be padlocked</b>	<b>6</b>
③ <b>Writing LOTO procedures</b>	<b>7</b>
• <b>Required contents of a LOTO procedure</b>	<b>7</b>
④ <b>Acquiring and organizing LOTO equipment and devices</b>	<b>8</b>
⑤ <b>Writing a general LOTO program</b>	<b>8</b>
⑥ <b>Training</b>	<b>9</b>
⑦ <b>Evaluating and maintaining the program</b>	<b>9</b>
<b>DISCOVER OUR LOCKOUT MANAGEMENT SOFTWARE</b>	<b>10</b>
<b>ASK ALL YOUR QUESTIONS TO ONE OF OUR EXPERTS</b>	<b>10</b>
<b>CONTACT US</b>	<b>11</b>

## WHAT IS LOCKOUT/TAGOUT (LOTO)?



LOTO management consists of neutralizing all sources of energy that may cause an accident to workers in the hazardous area of an equipment, system or machine. It enables eliminating the risk of putting a worker in contact with hazardous energy that could injure and lead to serious consequences.

LOTO management during installation works, maintenance or repairs guarantees physical safety of the workers. It maintains a safe environment for the workers and helps to reduce the time required to carry out the control of hazardous energy.

LOTO is one of the most reliable methods to control hazardous sources of energy. With the installation of energy isolating devices, the risks of unintentional starting are eliminated, thus ensuring the safety of workers. Lockout/tagout helps protect workers, eliminate the risk of accidents and avoid the costs they generate.



### BENEFITS

An effective LOTO program:

- Saves lives
- Prevents incidents and accidents
- Improves productivity
- Reduces time waste
- Reduces costs
- Keeps data integrity up to date
- Improves and ensures legal compliance
- Reduces access time to information
- Optimizes processes
- Better manages planned shutdowns
- Etc.



### IMPACTS

Good practices in health, safety and the environment ensure the safety of workers and help save lives. Every employee deserves a safe and healthy working environment. It is therefore up to every employer to identify and control dangerous energies.

One of the best ways to ensure a safe and healthy working environment is to make sure your LOTO program is up to date and compliant.

Non-compliance can not only lead to serious health risks for workers, but also lead to significant penalties and costs for the company.

# RESPONSIBILITIES AND OBLIGATIONS

## Responsibilities and obligations of the employer

The employer is responsible for the application of energy control methods, including LOTO. It must ensure that the energy source control procedures are developed and applied for each machine or equipment. They must be periodically revised.

All LOTO material must be provided, accessible, in sufficient quantity and in good condition. A padlock and tags must be provided to all workers with access to hazardous areas.

*The employer must provide these devices and they must be singularly identified and not used for other purposes.*

*In addition, they must have the following characteristics:*

- *Durable enough to withstand workplace conditions. Tagout devices must not deteriorate or become illegible even when used with corrosive components such as acid or alkali chemicals or in wet environments.*
- *Standardized according to color, shape, or size. Tagout devices also must be standardized according to print and format. Tags must be legible and understandable by all employees. They must warn employees about the hazards if the machine is energized, and offer employees clear instruction such as: “Do Not Start,” “Do Not Open,” “Do Not Close,” “Do Not Energize,” or “Do Not Operate.”*
- *Substantial enough to minimize the likelihood of premature or accidental removal. Employees should be able to remove locks only by using excessive force with special tools such as bolt cutters or other metal-cutting tools. Tag attachments must be non-reusable, self-locking, and non-releasable, with a minimum unlocking strength of 50 pounds. Tags must be attachable by hand, and the device for attaching the tag should be a one-piece nylon cable tie or its equivalent so it can withstand all environments and conditions.*
- *Labeled to identify the specific employees authorized to apply and remove them.\**

## Procedures for removing padlocks or isolating devices

In the event of the loss of a key, an absent worker or other situation which does not permit the removal of padlocks or the isolation device in an intended manner, a withdrawal procedure must be drawn up and indicate under what conditions an authorization may be granted.

\* OSHA 3120 Booklet

## **RESPONSIBILITIES AND OBLIGATIONS**



### **Procedures and methods of energy control**

The LOTO procedure must indicate the sequence of stopping or deactivating the machine or equipment, define the actions to block or completely release the stored residual energy (if present) as well as specify the steps to unlock and safely restart the machine or equipment.

If an energy control method other than LOTO is considered, the employer should conduct a risk analysis to demonstrate the equivalent effectiveness of this option.



### **The necessary training for workers and people with access to dangerous areas**

*The employer must provide initial training before starting service and maintenance activities and must provide retraining as necessary. In addition, the employer must certify that the training has been given to all employees covered by the standard. The certification must contain each employee's name and dates of training.*

*Employers must provide retraining for all authorized and affected employees whenever there is a change in the following:*

- Job assignments,
- Machinery or processes that present a new hazard, or
- Energy-control procedures.

*Retraining also is necessary whenever a periodic inspection reveals, or an employer has reason to believe, that shortcomings exist in an employee's knowledge or use of the energy-control procedure.\**



### **Responsibilities and obligations regarding the work of subcontractors**

*If an outside contractor services or maintains machinery, the onsite employer and the contractor must inform each other of their respective lockout or tagout procedures. The onsite employer also must ensure that employees understand and comply with all requirements of the contractor's energy-control program(s).\**

\* OSHA 3120 Booklet

## HOW TO COMPLY?

From the development of the LOTO program to the implementation of a management system, key steps must be taken to frame the practice of LOTO within the company and ensure compliance.

### 1 Preparing

Before undertaking an approach, the employer must engage in this process and indicate the modalities (allocate the human and financial resources, appoint a responsible person to coordinate the project and identify the contacts).

### 2 Identifying equipment to be padlocked

All equipment must be identified and codified. Those that require a method of energy control can then be specified. Equipment identification procedures are recommended to facilitate the consistency of the information.

Recorded data for the equipment usually includes:

- Its identification number
- Its name and type
- Its brand and model
- Its description
- Its location
- Comments
- Interventions requiring lockout, for example: release, maintenance, repair, etc.
- Types of energy sources, e.g. electrical, mechanical, hydraulic, pneumatic, etc. and the possibility of the presence of residual energy
- Its energy sources, its isolation points that need to be neutralized
- Access difficulties or obstacles will be recorded to be able to make the necessary corrections
- The isolation devices to be used.

Between 2003 and 2013,  
**28 workers died**  
because of procedural  
failures of lockout/tagout.

Source: Occupational Safety  
and Health Administration (OSHA)

# HOW TO COMPLY?

## 3 Writing LOTO procedures

In order to carry out the control of hazardous energies, a procedure for each machine, equipment or task must be developed. If more than one machine or equipment is identical or similar and has the same processes, a single LOTO can be applied. It is then necessary to identify all the machines concerned on this same procedure.

LOTO must be accessible in hard copy, laminated to the equipment or electronically using a management software.



### Required contents of a LOTO procedure:

- Identification of the machine
- The name of the person responsible for the energy control procedure
- The location of any power source or control device of the machine or equipment
- Identification and location of the power source cut-off points
- The material (type and quantity) required
- The stop sequence of the machine or equipment and defined actions in case of residual energies (process to block or release them entirely)
- The stages of control and validation as well as the measures to ensure the continuity of the application of the energy control procedure, particularly during a change of personnel, change of equipment, individual protective equipment (required or other additional protective measures)
- The steps for removing energy source control devices and recommissioning, evacuation procedures.

**Each LOTO procedure must be approved by a competent person prior to its implementation.**

2 / 5

**CONFORMIT** **LOCKOUT PROCEDURE**  
WARNING: This equipment is categorized as CONFINED SPACE

<b>Equipment number</b> Equipment description		<b>Procedure title</b> [LOP] COMPLETE LOCKOUT						
<b>Location:</b> Equipment location								
<b>Approved - 2017-01-20</b>								
<b>Safety equipment</b>								
Safety equipment	Description							
Boots	Safety boots depending on work to be done.							
Safety goggles	To protect against dust and splashes.							
Safety helmet	Safety helmet to protect the head.							
<b>Trades</b>								
Trade	Detail							
Electrician								
<b>Additional information</b>								
No	Additional information							
1	Additional information 1							
<b>Preparation, notification and shutdown</b>								
No	Device	Device No	Description Location	Instruction	Lock PAP			
1				INFORM affected employees that the equipment/machine will be locked.	WIT			
2				PLACE the equipment properly to perform the work.				
3		STOPPING DEVICE 1	Description of the stopping device 1 Location of the stopping device 1	PUT the selector in position "OFF".				
4				STOP equipment/machine using normal operating procedures.				
<b>Lockout, control and verification</b>								
No	Device	Device No	Description Location	Instruction	Mech.	Op. Pos.	Lock PAP	Test LR PAP
1		ISOLATION DEVICE 1 600 Volts	Description of the isolation device 1 Location of the isolation device 1	OPEN "OFF", CHECK if the blades are open if applicable and LOCK the disconnect.		ON		

Printed on: 2017-01-20  
CONFORMIT Page 2 of 5



## HOW TO COMPLY?

### 4 Acquiring and organizing LOTO equipment and devices

Following the writing of the LOTO, it will be necessary to evaluate and acquire the necessary equipment to control the energies.

As mentioned above, all LOTO equipment must be made available to all workers with access to hazardous areas.

In addition to the padlock and tags identified to each worker, separate borrowing padlocks must be available to, among others, a worker who needs an additional padlock, subcontractors, etc. The accessory kit will also include control padlocks, used for the transition when changing shifts, labels, hasps and other necessary control devices. It is a good idea to keep a record of the equipment to quickly identify who owns it and who uses it.

### 5 Writing a general LOTO program

All information about the applications required by the LOTO is logged in a document.

The general LOTO program contains:

- Human Resources (Coordinator and contacts)
- The equipment identification procedures and a model
- LOTO procedures and a model
- The inventory of energy control equipment and the process for their use (location, borrowing, etc.)
- Procedures for unusual situations
- Procedures when forgetting padlocks or changing a shift
- Disciplinary measures
- Coordination with subcontractors (roles and responsibilities of each)
- The training structure and the associated register
- Etc.

On average,  
**2,400**  
non-fatal electrical injuries occur  
each year in the United States.

Source: Bureau of Labor Statistics (BLS)

1

2

3

4

5

6

7

## HOW TO COMPLY?

### 6 Training

All workers and persons who have access to hazardous areas must be trained and certified in the LOTO program and energy control.

Retraining is also required whenever there are changes in task assignments, procedures, or if there is reason to believe that there are gaps in the knowledge or use by the employee.

### 7 Evaluating and maintaining the program

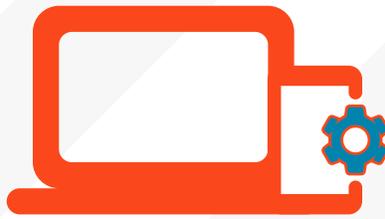
The LOTO program is not a document that should be shelved following its writing. Instead, it should be viewed as a living document which should be periodically revised to reflect the objectives and practices of the company.

In addition, the LOTO procedures must be reviewed *at least once a year to ensure that they provide adequate worker protection. As part of the review, employers must correct any deviations and inadequacies identified in the energy-control procedure or its application.\**

There were  
**14,625**  
occupational fatalities  
involving machinery from 1992 to 2010,  
resulting in an annual average of  
**770 deaths.**

Source: Marsh SM, Fosbroke DE. Trends of Occupational Fatalities Involving Machines, United States, 1992–2010. *American journal of industrial medicine*. 2015;58(11):1160-1173. doi:10.1002/ajim.22532. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4711279/>

\* OSHA 3120 Booklet



Discover our lockout management software.

Request a demo



Not sure if your LOTO program is compliant?  
Ask all your questions to one of our experts.  
We offer you a free consultation of 15 minutes.

Book your free consultation



---

**CONFORMiT is a leading global Environmental, Health & Safety Solution that puts the power of EHS Risk Management in the hands of the workforce.**

**CONFORMiT EHS software helps companies manage their EHS regulatory obligations, minimize risks and provide clear savings of time and money.**

---

**conformit@conformit.com**  
**1 888 545-9265**



© CONFORMiT®, 2019. All rights reserved.