

**LOCKOUT/TAGOUT**  
Safety & Personnel Resources, LLC

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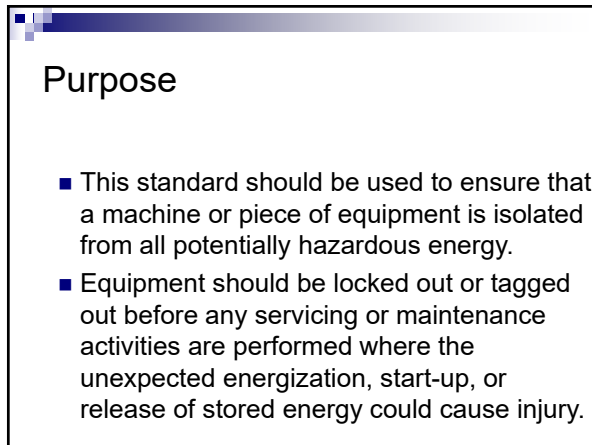
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**Purpose**

- This standard should be used to ensure that a machine or piece of equipment is isolated from all potentially hazardous energy.
- Equipment should be locked out or tagged out before any servicing or maintenance activities are performed where the unexpected energization, start-up, or release of stored energy could cause injury.

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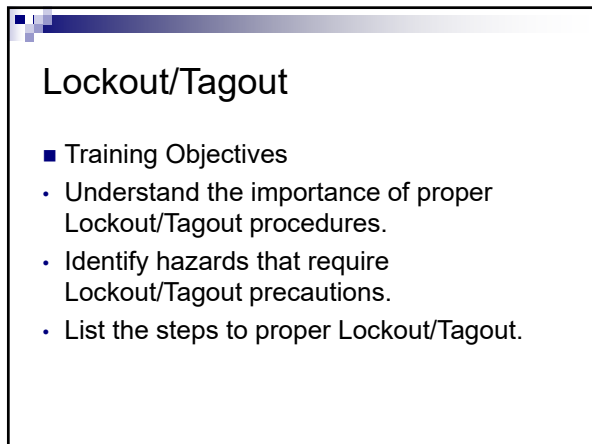
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**Lockout/Tagout**

- Training Objectives
  - Understand the importance of proper Lockout/Tagout procedures.
  - Identify hazards that require Lockout/Tagout precautions.
  - List the steps to proper Lockout/Tagout.

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### Responsibility

- Appropriate employees shall be instructed in the safety significance of Lockout/Tagout procedures.
- Each new or transferred “affected” employee and any other employee whose work operations are or may be in the area should should be instructed on the purpose and use of this procedure.

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### What is Lockout/Tagout?

- A method of preventing injury during work on/around equipment which might result from the following events:
  - Motion, energization, or start-up of equipment.
  - Release of stored or residual energy or chemicals.
  - Movement, falling or shifting of objects.

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### Lockout/Tagout

- Hazardous Situations Where Lockout/Tagout Procedures are needed.
  - Repair
  - Maintenance
  - Cleaning
  - Mechanical or operational problems

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**Why is Lockout/Tagout Important?**

- Improper use or failing to use may result in injury or death.
- We want to PREVENT YOU from being injured.
- It is an OSHA Regulation as of January, 1990 (29 CFR 1910.147).

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**When Should Lockout/Tagout be Used?**

- When you are performing:
  - Maintenance;
  - Repair work;
  - Cleaning;
  - Making adjustments;
  - Equipment Modifications;
  - Clearing jams...

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**Who MUST be Trained?**

- Employees who are performing the actual Lockout/Tagout operations.
- Anyone in or passing through the area(s) where a Lockout/Tagout is in process.

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### Procedures



- Six Step Procedure For Proper Shutdown.
  - Before Shutdown
  - Shutdown
  - Isolation
  - Lockout/Tagout
  - Energy Release
  - Testing

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### Sequence for Lockout/Tagout

- Notify all AFFECTED employees;
- Shut down equipment;
- Stored energy MUST be released;
- Lockout/Tagout machine with your OWN key and lock;
- Test equipment to make certain it will NOT operate;
- The equipment is now locked out and tagged out.

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### Restoring Machines or Equipment to Normal Operations

- After your work is finished check all areas around the equipment to ensure that no one is exposed;
- Remove all tools, replace all guards and remove the Lockout/Tagout devices;
- Notify all affected employees that Lock out procedures have been removed.

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### More than One Person Performing the Lockout/Tagout

Each individual **MUST** use  
their **OWN** lock.

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### Outside Contractors

Team work must be used when working with  
outside contractors in order to coordinate  
Lockout/Tagout procedures.



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### Basic Principles of Lockout/Tagout

- A tag alone may NOT be used because..
- They are not reliable.
- They provide no physical protection.
- They are just a warning device.

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### Your Lock and Key...



- Shall NOT be duplicated.
- Are YOUR responsibility.
- Your lock shall only be removed by YOU.

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### Interlocks

- Are NOT an acceptable means to isolate energy for the following reasons:
  - Interlocks can fail in unsafe mode.
  - Interlocks do not usually disconnect energy source from equipment.
  - Interlocks can sometimes be bypassed.

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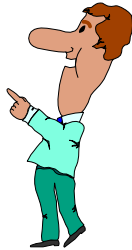
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### Types of Lockout/Tagout Processes

- Electrical;
- Chemical;
- Pneumatic;
- Mechanical;
- Gravity.



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### Every Situation is Different

- Due to the number and diversity of situations, it is impossible to determine a generic set of procedures.
- Each situation is unique and Lockout/Tagout procedures **MUST** be developed for each situation.

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### Manager and Supervisor Responsibilities.

- Identify all equipment and activities requiring Lockout/Tagout procedures.
- Develop Standard Operating Procedures for locking out each piece of equipment.
- Ensure all vendors and contractors on the property follow Lockout/Tagout procedures.
- Maintain designated area for locks and tags to be stored.

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### Summary

- Every situation is different.
- Written procedures **MUST** be in place for performing a Lockout/Tagout.
- It is **YOUR** responsibility to ensure that a Lock out is properly completed.
- **YOUR ONE LOCK = YOUR ONE KEY!**

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