COMPLYING WITH LOCKOUT TAGOUT & THE MINOR EXEMPTION RULE



TODAY'S PRESENTATION







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TOPICS

- Background of the control of hazardous energy (Lockout/Tagout) importance
- Potential Outcomes for Non-Compliance
- Compliance with LOTO Regulations
- Best Practices







BACKGROUND OF LOCKOUT/TAGOUT IMPORTANCE

Lockout/Tagout prevents50,000 injuries per year and120 deaths per year

 Lockout/Tagout is on the top 10 most cited standards list every year for OSHA





FREQUENTLY CITED OSHA STANDARDS RESULTS MANUFACTURING ESTABLISHMENT SIZE: ALL SIZES

Standard	Citations	Inspections	Penalty	Description
Total	2,285	725	\$17,527,376	All Standards cited for Manufacturing (part 1 of 3)
19100147	440	212	\$7,831,039	The control of hazardous energy (lockout/tagout).
19100212	228	194	\$2,192,694	General requirements for all machines.
19100178	132	92	\$475,490	Powered industrial trucks.
19101200	131	78	\$250,221	Hazard Communication.
19100305	123	72	\$569,371	Wiring methods, components, and equipment for general use.





WHAT EMPLOYERS ARE MISSING- TOP 10 CITATIONS

- 1. Failure to develop equipmentspecific LOTO procedures
- 2. Failure to train employees in LOTO
- 3. Failing to conduct periodic inspections
- 4. Failing to establish a LOTO program
- 5. Failing to follow the sequence of LOTO steps

- 6. Failing to protect workers during group LOTO
- 7. Failing to identify all energy sources and/or failing to lockout all disconnect sources
- 8. Failure to notify other employees
- 9. Abusing the "minor tool servicing exemption"
- 10. Failing to manage shift changes





1. LOTO PROCEDURES

REQUIREMENTS OF PROCEDURES

- Outline the scope, purpose, authorization, rules, and techniques to be utilized for the control of hazardous energy
- Statement of intended use of procedure
- Steps for shutting down, isolating, blocking and securing machines or equipment
- •Steps for the placement, removal and transfer of lockout devices or tagout devices
- Requirements for testing a machine or equipment

BEST PRACTICES

- Include photos of each lockout point
- Post equipment-specific procedures at the machine
- •Identify lockout points through markings







Lockout/Tagout Posted Procedure

Finishing / Bindery

Slitter Rewinder□ 9/28/2022

XYZ Company Description: Service and Maintenance

ID#:

Lockout/Tagout Posted Procedure

Finishing / Bindery

Created: Revised: Slitter Rewinder□ 9/28/2022

XYZ Company

Lockout **Points**

9/28/2022

Note: Equipment - 2 locks and tags.

*Deviations from this procedure are not permitted.

Lockout Application Process

1. Notify affected personnel. 2. Properly shut down machine. 3. Isolate all energy sources. 4. Apply lockout devices, locks, & tags. 5. Dissipate Residual Energy 6. Verify total de-energization of all sources.

	Lockout Steps	
Step#	Action	Info
1 Note	Prepare for lockout by reviewing the lockout/ tagout equipment-specific procedure, notifying affected personnel, and obtaining the necessary lockout equipment, locks, tags, and tools.	Slitter Rewind
2 Electrical 480 volts	Shut down the unit by pressing the red stop button on the control panel. The electric disconnect is located on the wall behind the unit. Turn the disconnect to the "off" position and apply a lock and tag. Verify the disconnect cannot be switched to the "on" position with the lock in place.	Electrical Disconnect



9/28/2022

Note: Equipment - 2 locks and tags.

*Deviations from this procedure are not permitted.

Service and Maintenance

Lockout Steps						
Step# Ac	ion Info					
3 Pneumatic 80-115 psi The pneumatic valve is behind the unit next to disconnect. Tum the right position and apply a lovalve cannot be "open place. Note — Air will automat the valve is closed.	the electrical ed valve to "closed" ek and tag. Verify the ed" with the lock in					

Verification of Energy Isolation

Verify that all energy sources are isolated and at a Zero Energy State by attempting to start machine with normal operating controls.

Lockout Removal Process

1. Ensure all tools and items have been removed. 2. Confirm that all employees are safely located. 3. Verify that controls are in neutral. 4. Remove lockout devices and reenergize machine. 5. Notify affected employees that servicing is completed.



REPRESENTATIVE PROCEDURE



ID#: Overhead Crane Created: 6/5/2024 Revised: 6/5/2024

facility: XYZ Company

Location: Various

6/5/2024 Description Descripti

Service and Maintenance

1 Lockout Points Note: Equipment - 1 Lock and tag.

*Deviations from this procedure are not permitted.

Lockout Application Process

1. Notify affected personnel. 2. Properly shut down machine. 3. Isolate all energy sources. 4. Apply lockout devices, locks, & tags. 5. Dissipate residual energy. 6. Verify total de-energization of all sources.

Lockout Steps						
Step#	Action	Info				
1 Note	Prepare for lockout by reviewing the lockout/ tagout equipment-specific procedure, notifying affected personnel, and obtaining the necessary lockout equipment, locks, tags, and tools.	Representative Overhead Crane				
2 Electrical 480 Volts	Locate the appropriate disconnect for the crane. Turn the disconnect to the "off" position and apply a lock and tag. Verify the disconnect cannot be switched to the "on" position with the lock in place.	Representative Electrical Disconnect				

Verification of Energy Isolation

Verify that all energy sources are isolated and at a Zero Energy State by attempting to start machine with normal operating

Lockout Removal Process

Ensure all tools and items have been removed. 2. Confirm that all employees are safely located. 3. Verify that controls are in neutral. 4. Remove lockout devices and reenergize machine. 5. Notify affected employees that servicing is completed.





BEST PRACTICE-CORD & PLUG ONLY



1 Lockout Points

Note: Equipment - 1 Plug lockout device, 1 lock and tag.

*Deviations from this procedure are not permitted.

Lockout Application Process

1. Notify affected personnel. 2. Properly shut down machine. 3. Isolate all energy sources. 4. Apply lockout devices, locks, & tags. 5. Dissipate residual energy. 6. Verify total de-energization of all sources.

Lockout Steps					
Step#	Action	Info			
1 Note	Prepare for lockout by reviewing the lockout/ tagout equipment-specific procedure, notifying affected personnel, and obtaining the necessary lockout equipment, locks, tags, and tools.	For use with Cord & Plug equipment only.			
2 Electrical	Ensure the equipment has been powered down.	Representataive Cord & Plug			
110-240 Volts	Locate the appropriate electrical plug for the associated equipment. Remove electrical plug from the outlet and apply a plug lockout device, lock and tag. Verify the plug cannot be inserted into the outlet with the lockout devices in place.				

Verification of Energy Isolation

Verify that all energy sources are isolated and at a Zero Energy State by attempting to start machine with normal operating controls.

Lockout Removal Process

 Ensure all tools and items have been removed.
 Confirm that all employees are safely located.
 Verify that controls are in neutral.
 Remove lockout devices and reenergize machine.
 Notify affected employees that servicing is completed.







2. TRAINING REQUIREMENTS

EMPLOYEES DEFINITIONS

Authorized Employee - A person who locks out or tags out machines or equipment in order to perform servicing or maintenance on that machine or equipment. An affected employee becomes an authorized employee when that employee's duties include performing servicing or maintenance covered under this section.

Affected Employee - An employee whose job requires him/her to operate or use a machine or equipment on which servicing or maintenance is being performed under lockout or tagout, or whose job requires him/her to work in an area in which such servicing or maintenance is being performed.

TRAINING REQUIREMENTS

- •Initial Training Provided upon initial assignment for employees
- •Re-Training Provided when there's:
 - A change in their job assignments
 - A change in machines, equipment or processes that present a new hazard
 - A change in the energy control procedure
 - When periodic inspections show's deviations or inadequacies



3. PERIODIC INSPECTIONS

- •Conducted by an Authorized employee
- •Review between inspector and authorized employee
- •Certified through a Periodic Inspection Form
- Review LOTO procedures and LOTO Authorized Employees



Best Practices:

- Schedule the inspections throughout the year
- •If you have a PM system, use it for tracking





4. LOCKOUT/TAGOUT POLICY

Develop policy to meet OSHA requirements:

- Energy control procedures
- Employee training
- Periodic inspections
- Lockout/Tagout devices and equipment
- Group procedures
- Shift change procedures
- Contractors
- Emergency lock removal steps







5. LOCKOUT/TAGOUT SEQUENCE OF STEPS

Authorized employee will:

- 1. Notify affected employees
- 2. Shut down energized equipment
- 3. Isolate energy sources from equipment
- 4. Lock out or tag out the energy isolation device
- 5. Release stored energy
- 6. Test / Verify







6. GROUP LOCKOUT/TAGOUT

When service or maintenance is performed by a crew

The "Head Authorized Employee" of the crew is responsible to coordinate the efforts

Each Authorized Employee shall place their own lock on the energy isolating device









7. FAILING TO IDENTIFY OR LOTO ENERGY SOURCES

Employees may often just LOTO the electrical source

Causes:

- Lack of enforcement
- Training wasn't effective
- Periodic inspections not conducted or not done thoroughly
- Employees think the other power sources won't hurt them





8. FAILURE TO NOTIFY OTHERS

Employees may not notify others that LOTO is about to occur.

Causes:

- Lack of enforcement
- Training wasn't effective
- Periodic inspections not conducted or not done thoroughly







9. ABUSING MINOR SERVICING EXEMPTION

MINOR SERVICING EXEMPTION

•OSHA Exemption: Note: Exception to paragraph (a)(2)(ii): Minor tool changes and adjustments, and other minor servicing activities, which take place during **normal production** operations, are not covered by this standard if they are **routine**, **repetitive**, **and integral** to the use of the equipment for production, provided that the work is performed using **alternative measures** which provide effective protection (See subpart 0 of this part).

LOTO STANDARD DOES NOT APPLY TO:

Cord-controlled devices w/ exclusive control

WRITTEN PROCEDURE EXCEPTION: APPLIES WHEN (8 ELEMENTS SUMMARIZED):

- No stored/residual/re-accumulation of energy exists
- Single-source equipment that can be locked out with a single lock



MINOR SERVICING EXEMPTION

Activity <u>must take place during</u>, and <u>must be</u> inherent to, normal production operations

Is carried out by employees with the machine or equipment energized.

Include minor servicing activities that safely take place while the process is performed in situations where extensive disassembly of the machinery/equipment is not required.

Examples:

- Clearing of jams
- Minor cleaning or adjustments
- Lubrication

The activity must be:

- <u>Routine</u>: The activity must be a regular course of procedure and be in accordance with established practices.
- <u>Repetitive</u>: The activity must be repeated as part of the production process or cycle.
- <u>Integral</u>: The activity must be inherent to the production process.

If all of these apply, then the employer can determine how to use alternative measures to provide effective protection from the hazardous energy.



CAN AN APM BE USED?

Is a guard by-passed or must the employee place any body part in a hazardous area?

Is the task routine, repetitive, and integral to production ?

Is the task a minor servicing activity that occurs during normal production ?

Is effective alternative protection available?

Does the alternative protection include redundancy ?

Is the protection under the exclusive control of the employee?

MINOR SERVICING EXEMPTION- ALTERNATIVE MEASURES

Alternative measures can include various applications of equipment safeguarding, as described in **OSHA Subpart O: Machinery and Machine Guarding.**

Machine guarding can include fixed guarding, interlocks, and ensuring exclusive control by the person executing the exemption procedure.



Minor Servicing Exception Procedures

- Develop written procedures
- Define when (what circumstances) the exception will be applied
- Define how the procedure will be executed
- •Including the alternative measures in place to provide adequate protection

Following development, employees who will use the procedure must be trained against them to ensure proper understanding and use.



SOP FOR MINOR SERVICING EXAMPLE

- Outlines purpose, definition of exemption
- Clearly states scope of task that the exemption will apply to
- Defines steps to follow to achieve alternative equivalent protections
- Operator maintains exclusive control
 - Critical to meet exemption
 - · Will not work if this cannot be met
 - Keep an eye out for guarding... not all interlocks are sufficient

MINOR TOOL EXEMPTION SOP WSA Pre-Feeder- EMBA 245





<u>Purpose</u>

This Standard Operating Procedure is for the routine operations that meet the LOTO minor servicing tool exemption.

Definitions

Minor Tool Servicing Exemption: Exception to paragraph (a)(2)(ii): Minor tool changes and adjustments, and other minor servicing activities, which take place during normal production operations, are not covered by this standard if they are routine, repetitive, and integral to the use of the equipment for production, provided that the work is performed using alternative measures which provide effective protection (See Subpart O of this Part).

Scope

Operations that meet the minor tool servicing exemption:

 Clear jams in WSA Pre-Feeder, EXCEPT beneath the elevator. Work under the elevator requires LOTO.

Steps

- Go to the control panel for the WSA Pre-Feeder.
- Turn Work Mode to "Manual."
- Turn Drive Power to the "OFF" setting.
- Remove the key from Drive Power.
- 5. Place the key in your pocket.

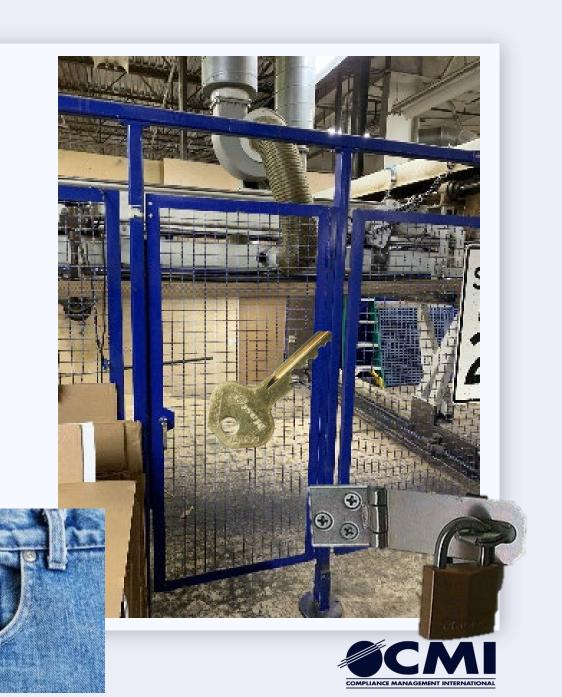


Release Date: Date of Update / Review:

SOP FOR MINOR SERVICING EXAMPLE

Interlocks will not suffice if:

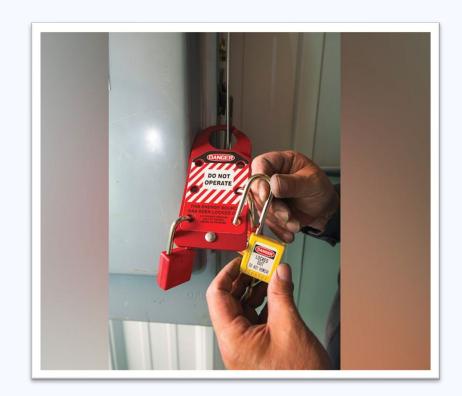
- Bypassed
- •If the guard can close behind them, no exclusive control
- •Can be over-ridden elsewhere on the equipment





SHIFT OR PERSONNEL CHANGE

- •Transfer of lockout and tag out devices between off going and on coming employees
- •Notifying on coming affected employees of the lockout in progress and start up testing to be performed
- •Performing a start up test on the equipment or machinery being serviced to verify a de-energized state.







Questions?

Thank you for joining us.



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