Workplace Safety

The Need for Lockout Tagout

Don Sears | Aug 23, 2018

Dangerous electrical energy can easily be stored in machining operations—so proper lockout tagout processes, devices and adequate training are needed to help keep workers safe from harm.

Uncontrolled hazardous energy is potentially dangerous. It can happen when a machine appears to be powered down when it's scheduled to be serviced. Without proper physical, documented protections in place, such as those found in a lockout tagout program, it can be very difficult to know the confirmed state of a machine or a cell of machines when they're scheduled for maintenance or repairs. Lockout tagout procedures are required by the Occupational Safety and Health Administration to help avoid amputations and fatalities—and are intended to help ensure machines are in a state of zero energy before, during and after work is being performed.

"Employees going inside a piece of equipment might be exposed to potential hazards from moving belts, pulleys, gears, sprockets, chemicals or hot steam," says Brian Drake, assistant regional administrator for enforcement programs in OSHA Region 7, in the article "***Preventing Safety Hazards with Effective Lockout/Tagout Programs***."

"They could also be crushed as a result of pneumatic or hydraulic energy, or even gravity," says Drake.

It's terrible to imagine accidents occurring from machines storing energy, but it unfortunately does occur—and it happens more often than most manufacturers would care to admit—which is why lockout tagout issues ***still rank in the top half of OSHA violations***.

OSHA's rules for lockout tagout procedures (1910 Subpart J, The Control of Hazardous Energy (1910.147)) require facilities to establish a program—and to provide training "to ensure that the purpose and function of the energy control program are understood by employees and that the knowledge and skills required for the safe application, usage and removal of the energy controls are acquired by employees." The law also requires that written plans are in place for proper lockout/tagout—and that those plans are audited and updated annually.

To help better understand the gravity of hazardous energy, dive into our infographic, which examines some of the key data points on lockout tagout. Be sure to look below the infographic for articles that detail important tips and guidance you can use in your safety program to help prevent harm from uncontrolled hazardous energy.

The Need for Lockout Tagout

Dangerous electrical energy can easily be stored in machining operations—so proper lockout tagout processes, devices and adequate training are needed to help keep workers safe from harm. Tagging is very important to visually show workers that a machine's operation status has been communicated and is clearly labeled—but locking is essential to making sure the machine's power and energy cannot be bypassed by service teams—and can only be handled by authorized workers. Take a look at some of the most important recent information on lockout tagout.

OSHA STANDARD 29 CFR 1910.147

It's a Top 10 OSHA Violation

In 2017: OSHA Top 10 Rank

#5

3,131 Violations

2,877 Citations

Top 4 Lockout / Tagout OSHA Citations

1 STANDARD 1910.147(C)(6)(I):
Procedures shall be developed, documented, and utilized for the control of potentially hazardous energy.

Citations: 621

2 STANDARD 1910.147(C)(1):
The employer shall establish a program consisting of energy control procedures . . . the machine or equipment shall be isolated from the energy source and rendered inoperative.

Citations: 373

3 STANDARD 1910.147(C)(7)(I):
The employer shall provide training to ensure that the purpose and function of the energy control program are understood by the employees.

Citations: 288

4 STANDARD 1910.147(D):
Affected employees shall be notified by the employer or authorized employee of the application and removal of lockout devices.

Citations: 79

3 Examples of Company Fines: 2017

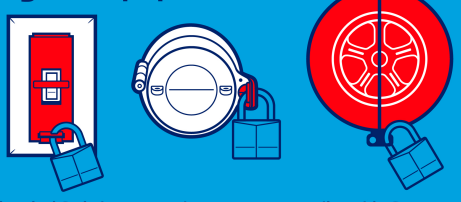
Automotive Manufacturer Mansfield, Ohio	Inspection Cause: Amputation, Machine Injuries	Total Fines: $536,249
Animal Feed Manufacturer West Point, Nebraska	Inspection Cause: Fatality	Total Fines: $526,633
Container Manufacturer Chicago, Illinois	Inspection Cause: Injuries	Total Fines: $503,380

Machine Guarding vs. Lockout Tagout

Machine guarding provisions cover most production operations, however workers performing maintenance during operations must follow lockout tagout procedures if they:

- Remove or bypass machine guards or other safety device
- Place any part of their bodies in or near a machine's point of operation
- Place any part of their bodies in a danger zone of machines

3 Examples of Lockout Tagout Equipment



Electrical Switch Lockout

Push Button Lockout

Adjustable Gate Valve Lockout

SOURCES: Safety+Health Magazine, 2017; National Safety Council, 2017; Convergence Training, 2017; National Marker Company, 2018.

Spotlight on Lockout Tagout and Machine Guarding
Here is a collection of the best safety articles on lockout tagout, arc flash and machine guarding.

5 Ways to Improve a Lockout/Tagout Program and Promote Workplace Safety

4 Must-Answer Questions to Help Your Lockout/Tagout Training Program

Machine Guard Infographic: The Point of Operation

5 Big Machine Guarding Mistakes and How to Avoid Them

Preventing Injuries and Saving Lives with Proper Lockout/Tagout

Why Machine Guarding Is Key for Workplace Safety

5 Arc Flash Protection Tips for a Better Fire Safety Plan

Preventing Safety Hazards with Effective Lockout/Tagout Programs

5 Must-Answer Voltage Absence Verification Questions

Are you reviewing and auditing your uncontrolled hazardous energy program regularly? Share your comments.

www.mscdirect.com/betterMRO