

**Lake County Safety Council**  
**Thursday, September 9 Meeting**



**LAKE COUNTY**  
**SAFETY COUNCIL**  
Working Towards A Safer Workplace

***Back to the Basics:***  
***Lockout/Tagout &***  
***Machine Guarding Safety***

# Event Sponsor

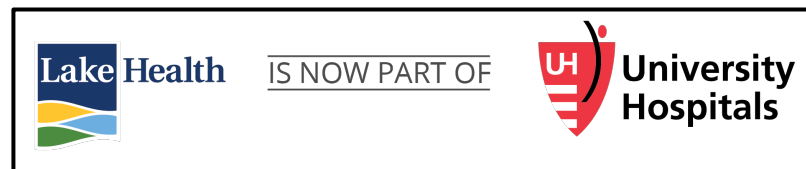


***HZW Environmental  
Consultants***

# Event Sponsor



*Lake Health  
Occupational Services*



# Event Sponsor

## Lake Health Occupational Services



IS NOW PART OF



### Occupational Services Department

8655 Market Street  
Mentor, Ohio 44060  
P: 855-LAKE-OCC (855-525-3622) or 440-354-1990

#### Service Locations:

Call 855-LAKE-OCC (855-525-3622) to schedule all physicals.  
Please do not bring children to the clinic for your appointment/testing.  
Candidate/Employee MUST WEAR A MASK into the clinic for testing.

#### LAKE COUNTY

UH Brunner Sanden Deitrick Wellness Center  
Urgent Care  
8655 Market Street  
Mentor, OH 44060  
P: 440-255-6400  
F: 440-701-7648  
Hours:  
Monday-Friday 8 am - 8 pm  
Saturday/Sunday 9 am - 5 pm

UH Willowick Health Center  
Urgent Care  
29804 Lakeshore Boulevard  
Willowick, OH 44095  
P: 440-585-3322  
F: 440-585-1962  
Hours:  
Monday-Friday 8 am - 8 pm  
Saturday 9 am - 5 pm  
Sunday Closed

#### GEAUGA COUNTY

UH Chardon Health Center  
510 5th Avenue  
Chardon, OH 44024  
P: 440-279-1525  
F: 440-279-1527  
Hours:  
Monday-Friday 8 am - 4 pm  
Saturday/Sunday Closed

For injuries and after-hours Post Accident/Reasonable Suspicion Drug/Alcohol Testing:

**EMERGENCY DEPARTMENTS** are 24/7 at:

UH Lake West Medical Center  
36000 Euclid Avenue  
Willoughby, OH 44094

UH TriPoint Medical Center  
7590 Auburn Road  
Concord Twp., OH 44077

UH Madison Health Center  
6270 North Ridge Road  
Madison, OH 44057

Welcome

# **LOTO AND MACHINE GUARDING BASICS**

# COURSE AGENDA

The following topics will be covered as part of this training:

- General review and discussion of the OSHA LOTO process
- LOTO program management
- Basics of machine guarding

## PURPOSE OF THE STANDARD

29 CFR 1910.147

29 CFR 1926.417

**OSHA - “To prevent the unexpected energization or startup of machines and equipment, or release of stored energy, to prevent workplace injuries during service and maintenance operations.”**

# WHEN DOES LOTO APPLY?

During servicing or maintenance activities performed during normal production operations if:

- An employee is required to remove or bypass machine guards or other safety devices;
- An employee is required to place any part of his/her body into a machine's danger zone;
- Tasks performed near other moving equipment; or if
- Maintenance or service tasks require close proximity to a guarded hazard area, while there is still potential for contact with the hazardous area of the machine (ex: loose clothing/hair falling into machine).



# MACHINE SPECIFIC PROCEDURES



**Required** for each piece of equipment or machine.



Must be **accurate** and **up to date**.



Points out each source of energy, the quantity, and where you release the energy and place the LOTO equipment.

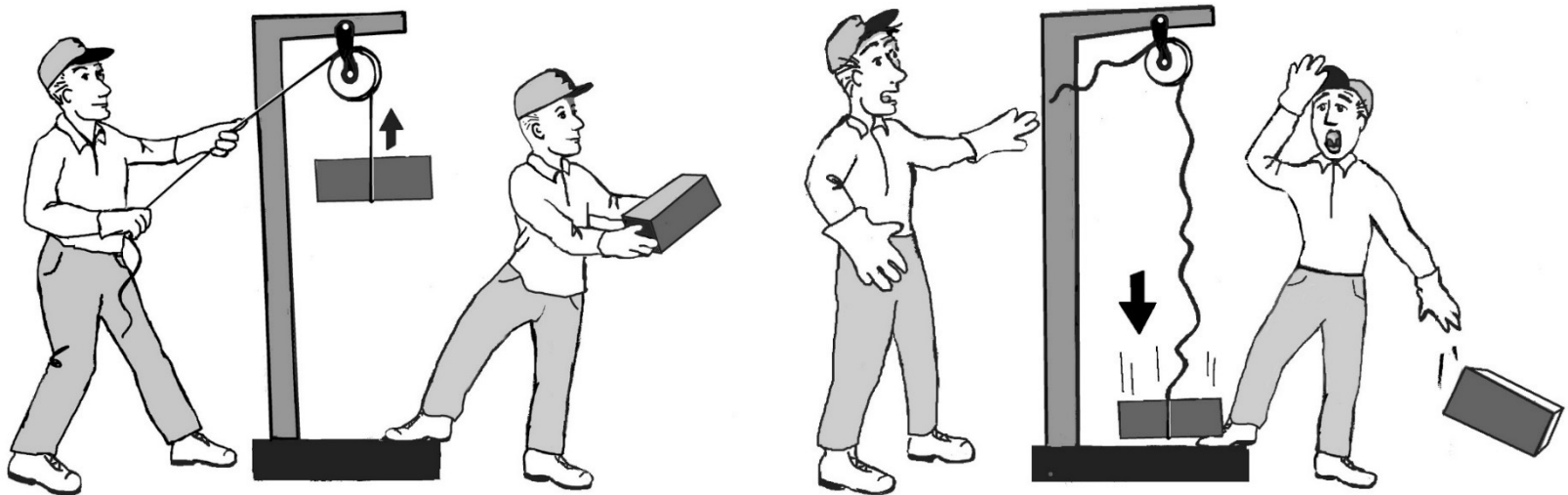


It's helpful to have a resource available when developing these such as a maintenance employee.

# ZERO ENERGY

**Zero energy:** Condition where all supplied and stored energy is removed, relieved, or blocked.

Potential energy can be converted to kinetic!



# COMMON LOTO FAILURES



Employees do not lock out all isolation points or disconnects



Not enough lockout hardware is available for proper lockout/tagout



Lockout equipment is not feasible for given isolation points or disconnects

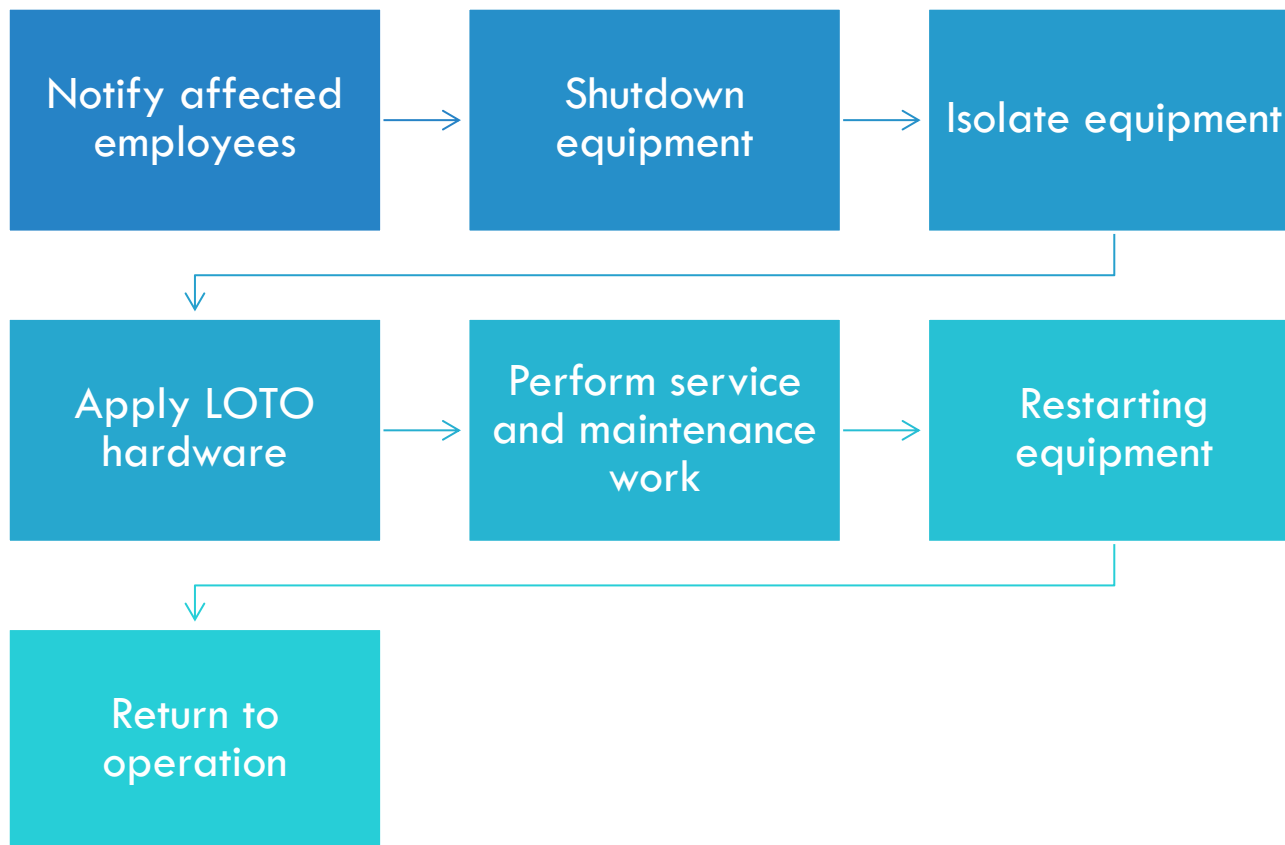


Not every employee participates in group lockout/tagout



Energy control procedures are not developed

# LOTO PROCESS



# EMPLOYEE TRAINING

## **Authorized:**

- Trained to perform LOTO.
- Trained in the purpose and use of the energy control procedure
- Trained in the recognition of applicable hazardous energy sources.
- Trained in the methods and means necessary for energy isolation and control.

## **Affected:**

- Trained in what to do when LOTO impacts their job.
- Instructed that attempts to restart or re-energize machines or equipment that is locked out is prohibited.
- Typically instructed in the limitations of their training (affected employees are not authorized to perform LOTO).

# CONTINUAL PROGRAM MANAGEMENT

Energy Control/LOTO Program should include the following:

1. Energy control procedures for every type and piece of equipment
2. Employee training as appropriate
3. Periodic assessments/reviews of authorized employees at least annually
4. Regular reviews of written LOTO procedures
5. Adequate supply of LOTO hardware
6. Develop and follow a LOTO removal policy

# MACHINE GUARDING

Three main categories of guarding:

- Barrier
- Device
- Proximity

Not all equipment will have simple guarding solutions or easy fixes.

NOTE: Manufacturers are not required to fully guard equipment that they sell to you!

# GUARDING TYPES

## Barriers

- Physical barrier to stop employees from reaching a hazard area (can be fixed or adjustable)

## Device

- Production controls or devices to stop machine (two-hand trip, light curtains, trip wire, etc.)

## Proximity

- Only applies vertically for unprotected fan blades (7' above walking working surface)



# MACHINE GUARDING PURPOSE

Guarding is designed to permit the safe use of the equipment while preventing employee contact with hazard areas.

- Point of operation
- Rotating parts
- Access to other hazards

Any equipment designed for a fixed location must be anchored or secured.

# SPECIAL CONSIDERATIONS AND TIPS



Perform assessments of each piece of equipment.



Evaluate for gaps in guarding that go beyond production or point of operation exposures.



Determine which exposures are production related or maintenance/service work.



Train employees to evaluate equipment for guarding concerns.



Provide tools or devices to keep employees hands away from hazard areas.



**QUESTIONS?**

