OBJECTIVES

1910.147(a)(1) / T8CCR 3314 CAL OSHA

- Clarify requirements of the Lockout/Tagout (LOTO) Program.
- Ensure everyone is aware of their role within LOTO Program. (Authorized, Affected and Others).
- Provide an opportunity to discuss concerns related to LOTO Programs.
- Provide an opportunity to respond to OSHA’s information request for possible updates to LOTO standard.
ACCIDENT RELATED FACTORS

- Clearing jams, cleaning residue, clearing stock.
- Failing to shut off equipment.
- Lack of proper tools.
- Common practice
- Likelihood / Severity
- Lack of awareness – training

South Padre Island Water Park.
2 Affected employees, 1 Authorized and Other employees in the area. 1910.147 (e) (2)(i). Pg 247
I. How Injuries Occur During the Servicing of Equipment?

- BLS study on injuries while servicing equipment revealed:
  - 80% failed to turn off equipment
  - 10% equipment activated by someone else
  - 5% failed to control potential energy
  - Most of remaining 5% disconnected power but failed to verify effectiveness
Repairing without de-energizing. Why is this occurring? What needs to be done?
Types of Hazardous Energy

- What types of hazardous energy are subject to LOTO?

Group Activity: put the steps in order, Do not use the internet or your 3314 CCR
IV. General LOTO Procedure
1910.147 (handout)

**STEP 1**
ID Energy Sources

**STEP 2**
Notify Others

**STEP 3**
Shutdown Equipment

**STEP 4**
Isolate Equipment

**STEP 5**
LOTO Equipment

**STEP 6**
Release Stored Energy

**STEP 7**
Verify Isolation

**STEP 8**
Perform Servicing
1. Specific Procedural Steps
2. Steps for shutting down
3. Steps for blocking/securing
4. Steps for lockout devices
5. Steps for testing lockout
6. Steps for inspections
7. Steps for instructions
8. Steps for training

9. Compliance of steps
Answer 1910.147 (c)(4)(i)
Energy Control Procedures

- The 6 pack with 6 locks, was remove by hand!!! Almost killed 3 employees.
Lockout/ Blockout or Tagout

GENERAL Industry

The OSHA Standard for the Control of Hazardous Energy (Lockout/Tagout) 29 CFR 1910.147 (a)(1)(i) pg. 244 / Title 8 CCR- 3314 Cal OSHA

SCOPE: covers the servicing and maintenance of machines and equipment in which the unexpected start-up or the release of stored energy could cause injury to employees.
II. What is LOTO?

- “LOTO” is a technique used to prevent energy from being released during the servicing of equipment. This is accomplished by placing locks on energy isolation devices prior to starting work.
The Control of Hazardous Energy
Lockout / Blockout or Tagout


- **Concerns.** No LOTO permits, procedures, program and no training or improper training-15min video no evaluation.

- **Definitions 1910.147(b)** Affected, Authorized and Other Employees
- Energy Control Procedures Each machine, piece of equipment or prime mover must have separate procedural steps for their safe lockout/tagout. T8CCR 3314 CAL OSHA Section 2940.13.

- Lookout or Tagout? 1910.147(c)(2)(i, ii, iii) The Tag could have safed the Stripes Guy!

- Requirements for working on energized electrical systems are prescribed in Sections 2320.1 through 2320.9 or 2940 through 2945. or NFPA 70E

- LOTO Standard does not cover Construction, Agriculture, Oil & Gas Well Drilling & Servicing. 1910.147(a)(1)(ii)[A-E]
Frequent Violations

- De-energize and disengage (also block moveable parts) during lockout activities.
- Lack of proper tools or other methods when movement is required.
- No specific haz energy control procedural steps for affected equipment. JSA, PERMITS
- Lack of proper training.

COMPLIANCE
VIOLATIONS
CITATIONS
PENALTIES
CONSEQUENCES
Training Outline T8CCR 3314

1910.147 (c) (7)

I. How Do Injuries Occur During Servicing?
II. What is LOTO?
   - Types of hazardous energy
   - When should LOTO be applied?
   - Energy isolation devices
III. LOTO Basics
IV. General LOTO procedure Site Specific.
V. Special Situations old machines
VI. Tagging and Flagging Basics

Employer Shall Provide Training and Retraining 1910.147 (c) (7) (i) & (iii)
Summary

- All hazardous energy sources must be controlled (kinetic & potential).
- Control via energy isolation device.
- Only use designated lock for LOTO.
- Tags must accompany all locks.
- Nine-step general procedure – remember to verify isolation.
- Protection must be ensured during special situations.
Any Questions?

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