

# Southern California Trade Contractors Association

## Quarterly Safety Newsletter

3<sup>rd</sup> Quarter, 2017

3<sup>rd</sup> Quarter, 2017

### In this issue

-Lockout - Tagout

-10 of the Most Common Problems with Lockout - Tagout

## Lockout - Tagout

Every year over one hundred workers lose their lives as a result of equipment which was not properly de-energized during set-up or repairs. Approximately thirty thousand employees are injured in what are often considered to be preventable accidents.

Many hazardous energy sources such as electrical, mechanical, pneumatic, hydraulic and thermal energy are present during the production of products or building construction. Other less frequent or often overlooked sources of stored energy include power presses.

Lockout of an energy source involves placing a lock on an actuating device, such as a circuit breaker or shutoff valve. This procedure must ensure that the equipment the device controls cannot be started until the lock is removed.

Tagout, on the other hand, is simply placing a tag or label on an isolating device to warn others not to restore energy to the equipment.

### Lockout Procedures

Set up a program, publish it and train your employees.

The program can be as simple as providing lockout devices on equipment and assigning workers their own locks. Strict programs may require the worker to obtain the lock from the office and sign a register indicating what equipment is being locked out and when the work will be finished. This allows management to keep track of down equipment.

- Determine which switch will de-energize the equipment.
- Open the switch, preferably with the equipment running as proof that the switch is the right one.
- Attempt to operate the equipment with the normal operating controls.
- Place a padlock on the switch in the open position.

Use lockout devices that accept more than one padlock if more than one person works on the equipment at any one time. The lockout is placed on the switch in the open position. All padlocks must be removed before the lockout will come off.

- There must be only one key for each padlock and it must be kept in the possession of the worker.
- Locks and any other equipment required for energy control (chains, blocks, shorting bars, pins, etc.) shall be provided by the employer and must be designated for energy control exclusively. They shall not be used for any other purpose.

Continued page 2....



Mark Hebson, Administrator  
22925 Arlington Ste. #1  
Torrance, CA 90501

Visit our website at [www.socattrade.org](http://www.socattrade.org)



# Southern California Trade Contractors Association

## Quarterly Safety Newsletter

3<sup>rd</sup> Quarter, 2017



### 3<sup>rd</sup> Quarter, 2017 Safety Newsletter

#### The 10 most common problems with lock/tagout

1. Lack of procedures – Specific procedures should be written for each piece of equipment or process that identify all energy sources and the energy. The procedure becomes the checklist to assure that all energy sources are controlled before servicing and maintenance starts.
2. Training all employees – Most employers do a good job of training those employees who apply locks and tags (called “unauthorized employees”) and those who operate the machines where locks are installed (called “affected employees”). But OSHA requires awareness training for a category of employee called “all other employees.” These employees usually include management and staff who have occasion to walk around equipment that is locked and tagged, but they do not actually operate, service or maintain the equipment. “All other employees” must be apprised of the purpose of lock/tagout, the energy control devices used and to leave the locks and tags alone.
3. Wrong use of tags – Lockout locks are sometimes used for tool boxes and lockers. The only use for your “Danger Do Not Operate” energy control tag is for servicing and maintenance of equipment. Any other use degrades the importance of the tag. Most facilities need at least four different tags: (See 29 CFR 1910.147 (c) (5) (ii).)
  - a. Energy control for servicing and maintenance
  - b. Process control for production purposes
  - c. Informational to impart information
  - d. “Danger Do Not Use” for defective tools and equipment
4. Wrong Use Locks – Lockout locks are sometimes used for tool boxes and lockers. As about, the energy control lock’s only purpose is for energy control during servicing and maintenance. Every employee must respect the hazardous energy control lock.

- The lockout device (padlock) must identify the person who attached it. Where padlocks are controlled through an office, a number can refer back to the log where the worker will be identified.
- Check the voltage, short out capacitors, relieve pressure from hydraulic and air systems, place springs in neutral position, etc.
- Each worker’s lock remains on the switch or lockout device until his/her work is done.
- Any work performed on the de-energized equipment must be done with that worker’s padlock in place. Do not rely upon someone else’s padlock. Do not rely upon the disconnect switch being in sight. Lockout must be used.
- Provide a specific procedure for ensuing orderly transfer of control devices from on shift to the next.
- Inform contractors of the lockout/tagout procedures and the prohibition against tampering with energy isolation devices.
- When a device can be locked out, a lockout must be used.
- Exception: If a tagout procedure can provide equal employee protection, it may be used.
- Tags have several limitations. For them to provide full employee protection, workers must be informed of these limitations:
- Tags must be legible and understood by all employees (multi-lingual). Tags must have a consistent typestyle, layout and format and must identify the person who applies to them.
- Tags are little more than a means of warning. If the meaning is not understood, they may provide the worker with a false sense of security.
- The tags and their attachment must be compatible with the workplace, atmosphere and must be firmly attached.
- Tags do not provide physical restraint.
- Proper authority is required before tags can be removed, ignored or otherwise invalidated. The attaching device must be non-reusable, be capable of being affixed by hand, and require at least 50 pounds of pressure to remove.

Many programs require that tags be obtained from the office and log entries be made indicating what is to be tagged out, the date and time tagged and expected time back on-line. The tag is dated and must be returned to the office when the equipment is put back in service.

Substantial force must be required to remove a lockout of tagout device by someone other than the worker who applied it.

Continue on page 3...

Continued on page 3...



# Southern California Trade Contractors Association

## Quarterly Safety Newsletter

3<sup>rd</sup> Quarter, 2017



5. Welcome under someone else's lock – OSHA's standard and best practices require each employee servicing a piece of equipment to apply his or her own lock and tag for personal energy control responsibility. (Note that OSHA Instruction STD 1 -7.3 does allow sign-in/sign-out in lieu of personal locks.) Some employers mistakenly require only the crew chief or journey to apply a lock and tag for a crew or gang. No individual should take responsibility for the safety of another worker where lockout/tagout is necessary.
6. Not identifying all energy sources – Opening a disconnect by itself does not always control all hazardous energy. Sometimes overlooked are separate circuits running to a machine, delivery of energy from an overhead crane or adjacent conveyor, and gravity and kinetic energy. The written procedure must identify all energy sources. (See 29 CFR1910.147(d).)
7. Annual audit of procedures and review of findings – OSHA requires an annual audit of each procedure and a review of the audit findings with each authorized employee where lockout is used, and each authorized and affected employee where only tagout is used. The audit should determine if all energy sources have been identified, if employees understand which energy source is harmful and which is not (such as water pipes and low voltage), and if the energy control procedures are understood and followed. (See 29 CFR1910.147©(6).)

### *You must classify your employees!*

- Employees must be authorized to physically lock or tagout a machine.
- Affected employees are those whose jobs require them:
  - Operated equipment that is subject to lockout/tagout procedures;
  - Work in areas where lockout/tagout is used.

### **Procedures**

Explain the program's purpose, describe its scope and identify authorized employees. Detail procedures on shutdown, equipment isolation, device application and removal, stored energy dissipation, and verification that lock/tagout conditions are achieved. Document by the procedures unless all of the following can be demonstrated by the employee:

- Energy cannot be stored or re-accumulated after shutdown;
- There is only one source of energy isolation;
- Isolation of that single source completely de-energizes the equipment;
- The machine is locked out during service;
- A single lockout device provides complete lockout;
- Worker performing the task has exclusive control of the lockout device;
- No hazard to any other worker is created by the lockout being performed;
- NO prior accidents or incidents involving unexpected activation of the machine have occurred during maintenance or service.

### **Training**

Authorized employees must be trained in:

- Hazardous energy source recognition;
- Type and magnitude identification of energy sources.
- Methods and means for isolation and control of energy.
- Affected employees must be instructed on the purpose and use of lock/out procedures.
- Other employees only need instruction on the procedures but not their use. The prohibition on trying to restart equipment that has been locked/tagged out must be emphasized.



# Southern California Trade Contractors Association

## Quarterly Safety Newsletter

3<sup>rd</sup> Quarter, 2017

### Staffing Agency Responsibilities

The staffing agency is usually responsible for providing generic safety and health training so that its workers have a basic ability to identify hazardous situations, report hazards, injuries and illnesses, and understand their rights if confronted with a hazardous situation at the worksite. The staffing agency is responsible for ensuring that employees receive proper site-specific training. In order to fulfill this obligation, the staffing agency must have a reasonable basis for believing that the host employer's training adequately addresses the potential hazards to which employees will be exposed at the host employer's worksite. If the staffing agency has reason to believe the site-specific training is not adequate, it should inform the host employer and collaboratively determine and provide adequate training, provide the training itself, or remove its workers from the host employer's worksite. While the staffing agency may have a representative at the host employer's worksite, the presence of that representative does not transfer responsibilities for site-specific training to the staffing agency.

The staffing agency may agree to provide site-specific training if it is familiar with the hazards of the worksite. The staffing agency may choose to conduct a walkthrough of the worksite to identify tasks that that temporary employees will perform and the hazards of those tasks. However, the employer originally responsible for the particular training (determined by supervision and control over the workers hazards) must still ensure that the workers complete training and that the training is adequate before work begins.

**Disclaimer:** This bulletin is not a standard or regulation, and it creates no new legal obligations. It contains recommendations as well as descriptions of mandatory safety and health standards. The Occupational Safety and Health Act requires employers to comply with safety and health standards and regulations promulgated by OSHA or by a state with an OSHA-approved state plan. In addition, the OSH Act's General Duty Clause, Section 5(a)(1), requires employers to provide their employees with a workplace free from recognized hazards likely to cause death or serious physical harm. For more information please visit [www.osha.gov](http://www.osha.gov).

Southern California Trade Contractors Association  
President  
Mark Hebson  
22925 Torrance, CA 90501  
[www.socattrade.org](http://www.socattrade.org)

### 3<sup>rd</sup> Quarter, 2017

8. Maintenance vs. minor routine tool changes – Do your employees de-energize and lock out when they change a light bulb, change a drill bit, change a grinding stone, change the speed of the belt on the drill press, or stand up an overturned bottle on a conveyor line? They need to know the difference in servicing and maintenance versus minor, routine adjustments and normal production operations. When they don't know, employees don't usually take the initiative to lock out "just in case." (See 29 CFR 1919.147 (a)(2).)

9. Oversight – During the hundreds of lockout/tagouts that I've done, it's fairly easy to find deficiencies. But too many managers and safety professionals assume that their energy control policies work just fine. Probing questions and some healthy skepticism should be part of any energy control program review.

10. Duplicate keys – OSHA took a position in a letter to Honeywell that duplicate keys should not be on hand to remove locks. This makes lock removal too easy when an employee who applied the lock has left the facility. Destroy those duplicate keys and use bolt cutters to make someone think twice and follow the proper procedures to remove a lock.

A survey among our clients last year indicated that lockout/tagout was the number one most important safety procedure. Don't let your system fail.

**LOCKOUT/TAGOUT**

Lockout / Tagout procedures are designed to isolate or shut off machines and equipment from their power sources before employees perform any servicing or maintenance work.

**Definitions:**  
**Lockout** is the placement of a lockout device on an energy isolating apparatus (circuit breaker, air gate, line valve, disconnect switch, etc.) to ensure that the energy isolating device and equipment being controlled cannot be operated until the lockout device is removed. A lockout device utilizes a positive means such as a lock (key or combination type) to hold an energy isolating device in a safe position and prevent the energization of a machine or equipment. The lockout device must be substantial enough to prevent removal without use of excessive force or unusual techniques.  
**Tagout** is the placement of a tagout device (a tag or other prominent warning device and a means of attachment) on an energy isolating device to indicate that the energy isolating device and the equipment being controlled may not be operated until the tagout device is removed.

**Energy-isolating device**  
Any mechanical device that physically prevents the transmission or release of energy. These include, but are not limited to, manually operated electrical circuit breakers, disconnected switches, line valves and locks.

**Employees performing maintenance or service on machines or equipment shall observe the following procedures:**

- Lockout / Tagout of energy isolating devices shall be performed whenever maintenance or servicing is done on machines or equipment. This shall be done by employees who have received proper training on lockout/tagout procedures from Environmental Health and Safety.
- Employees observing a machine or piece of equipment which is locked or tagged out shall not attempt to start, energize or use that machine or equipment.
- Lockout and Tagout devices shall indicate the identity of the employee who affected the device.
- Lockout and Tagout devices shall be standardized within the facility.
- If an energy isolating device is not capable of being locked out, a tagout system shall be used.
- Tagout devices shall include warning statements such as "DO NOT ENERGIZE" or "DO NOT OPERATE".
- Whenever replacement, major repair, renovation or modification of equipment is performed, energy isolating devices for such machines or equipment shall be designed to accept a lockout device.

**Warning shall be provided for all authorized and affected employees whenever there is a change in their job assignments, a change in machine, equipment or procedure that prevents a safe locked, or when there is a change in the energy control procedure.**

**Source: See Also Information:**

- OSHA 309 OHS 1016-141, 1016-212 and 1016-214
- ANSI Z39-1-1982, Personal Protection Lockout / Tagout of Energy Sources
- American National Standards Institute (ANSI)
- 25 W. 42nd St., 4th Floor, New York, NY 10018, 212-512-2000