



WESCO ELECTRICAL AND SAFETY

Ensuring Safety with a Lockout/Tagout Program

SEVEN STEPS TO COMPLIANCE



Do you need a lockout/tagout program at your company?

Last year, a lumber mill had \$1.6 million worth of reasons to say “yes.” The company had repeatedly ignored OSHA citations for serious safety violations. Employees, according to OSHA, were exposed to amputation hazards while maintaining, cleaning and clearing jams on machinery that didn’t have their energy sources locked out.

After an employee suffered a partial finger amputation while clearing a machine that hadn’t been locked out and another suffered a severe hand injury while working on an unguarded machine, OSHA issued 24 willful violations at a maximum of \$70,000 each to the company, including failure to properly shut down and lockout 23 pieces of machinery before employees were required to clean them.

While this may be an extreme example of what can happen if you don’t have a comprehensive lockout/tagout program at your company, it does illustrate the potential dangers to your employees as well as the possible financial impact.

According to OSHA:

- Approximately 3 million workers service equipment and face the greatest risk of injury if lockout/tagout is not properly implemented. Compliance with the lockout/tagout standard prevents an estimated 120 fatalities and 50,000 injuries each year.
- Workers injured on the job from machinery that was not shut off properly lose an average of 24 workdays for recuperation

Clearly, implementing a good lockout/tagout program saves significantly on costs from lost employee time, workman’s compensation and other insurance costs. But at the end of the day, reason your company should implement a lockout/tag program is to ensure your employees go home safely. Safety in your workplace has a priceless value for the company, the workers and the workers’ families. Quite simply, a lockout/tagout program is not only required OSHA regulation, also the right thing to do.

However, ensuring employee safety means more than just shutting off, unplugging or disconnecting equipment. Procedures, devices and personnel must be set in place to prevent a serious injury when a worker thinks a machine is safely off.

The following is a seven-step program, created as a guideline to an effective lockout/tagout program. Additional helpful information is available on the OSHA website, www.osha.gov, or through your local safety equipment, or industrial solutions provider.

1. Be Aware of the Lockout Regulations

Become familiar with the federal regulations known as The Control of Hazardous Energy (Lockout/Tagout). OSHA defines lockout/tagout as the “specific practices and procedures to safeguard employees from the unexpected energization or startup of machinery and or the release of hazardous energy during service or maintenance activities.

Here are some of the most significant OSHA requirements for a Lockout/Tagout program:

- Only authorized workers may lockout or tagout machines or equipment in order to perform servicing or maintenance.
- Lockout devices (locks) and tagout devices cannot be used for any other purposes and must be used only for controlling energy.
- Lockout and tagout devices (locks and tags) must identify the name of the worker applying the device.
- All energy sources to equipment must be identified and isolated.
- After the energy is isolated from the machine or equipment, the isolating device(s) must be locked out or tagged out in safe or off position only by the authorized employees.
- Following the application of the lockout or tagout devices to the energy isolating devices, the stored or residual energy must be safely discharged or relieved.
- Prior to starting work on the equipment, the authorized employee must verify that the equipment is isolated from the energy source, for example, by operating the on/off switch on the machine or equipment.
- Locks and tags must remain on the machine until the work is completed.
- Only the authorized employee who placed the locks and tags may remove his/her lock or tag, unless the employer has a specific procedure as outlined in OSHA’s Lockout/Tagout standard.

2. Develop List of Machinery & Equipment

Survey your facility for all machinery and equipment that have the potential for requiring lockout. Even for a medium-sized building, this list could include several hundred pieces of equipment, each of which requires a separate lockout/tagout procedure.

Among machinery that’s listed are:

- Any automated machines
- Boilers
- Chillers
- Compressors
- Conveyors
- Generators
- Production equipment
- Pumps

For each machine, you will need to create a lockout procedure that details the specific steps for shutting down and securing the machine with special emphasis on safe release of any hazardous energy.



3. Identify & Mark Energy Sources & Lockout Points

Locate and document start-up areas of energy sources, such as:

- Electrical
- Hydraulic
- Mechanical
- Pressure
- Process Control
- Stored Energy — gravity — springs
- Thermal

Post signs, apply labels and tags...to warn and identify energy source areas and points requiring shut and lockout/tagout procedures.

Use graphics, including photographs and diagrams to clearly illustrate where the energy sources and lockout points are on each machine. Panduit has a complete line of solutions to help meet your lockout/tagout requirements and to make your employees aware of the energy source hazards found throughout your facility.

4. Determine the Lockout Controls

Identify and document the necessary devices that isolate and lockout energy sources, and secure them for on-site use. Standardize the devices for various functions for proper identification.

For example, develop different color locks for each shift at your plant and for supervisors. Be sure that everyone working on a machine understands that all locks for each shift must be removed only by the person responsible for each lock the machine is safe to operate.

5. Set-Up Lockout Training and Procedure Program

Develop, standardize, and document the lockout process – for each energy source. Identify employees' level of involvement in the program. OSHA categorizes employees into three groups – those who are made aware of, those who are affected by and those who perform the lockout procedures. Get employees involved through comprehensive training and certifications.

According to OSHA, employee training must cover at least three areas:

- Aspects of the employer's energy control program
- Elements of the energy control procedure relevant to the employee's duties or assignment
- The various requirements of the OSHA standards related to lockout/tagout.

OSHA also has updated advice on its website, www.OSHA.gov.

6. Implement the Lockout Program

Initiate and enact the lockout program that follows the training procedures. Post reminder and have the necessary lockout/tagout devices readily available.

When completed, your lockout/tagout program must have a written procedure for the safe shutdown and start-up of each machine in your company. You should have written and photographic documentation of what device is being used at each lockout point and the names of the people authorized to remove each lockout device.

7. Review Lockout Program

Finally, identify and document changes to existing lock procedures and new energy sources that require lockout. Make corrections, changes, and additions to the program. Conduct periodic review of lockout procedures (required at least annually) to ensure they are up to date and requirements are being met.

At this point, your company should have marked all energy control points with permanent labels or tags. Each piece of equipment should have a posted step-by-step energy control procedure that will prevent unexpected start-up and prevent injury to employees.

Creating an effective lockout/tagout program is a complicated procedure. But the benefits are numerous. Good lockout/tagout programs save lives and prevent injuries, which in turn, saves money lost to employee recuperation time and worker compensation costs. Productivity is also improved due to minimal equipment downtime.

Panduit offers a comprehensive workplace safety solution to help you meet your unique safety requirements, including the product systems and expertise in workplace safety compliance to help you meet stringent regulatory standards. Visit www.panduit.com/safety for more information.