Volume 4 – Issue 31 July 30th, 2017

Lockout/Tagout/Tryout Safety

Many people have ben seriously injured or killed by machinery and electrical equipment. Often, these tragedies happen because people carelessly try to repair or maintain the equipment without making sure its energy source has been shut off. Many times, the accident happens when other workers restart the machine, not knowing that another worker is in the machine.

To prevent this type of tragedy, OSHA developed a standard that has very specific procedures for shutting off machinery, for making sure it can't be operated after it's been shut off, and for warning employees to stay away from potential hazards. These procedures are called "lockout/tagout."

The key to lockout/tagout is to make sure that the equipment you are about to work on is completely shut down. Before you begin the shutdown, however, make sure you know what you're dealing with. You must know the type and magnitude of the energy you're working with, as well as the potential hazards and the proper way to control that energy. Once you know that, you must inform all affected employees that you are going to shut down the machine.

Lockout/Tagout/Tryout:

Lockout/Tagout/Tryout is a three-part procedure that is designed to protect you from accidental or unexpected startup of equipment.

This procedure serves four important purposes:

- To protect the person working on the equipment;
- To protect other workers in the area;
- · To protect the equipment; and
- To serve as a communication device for the above three. This is usually done in conjunction
 with a safe work permit.

LOTO Is Required When:

- Servicing or maintaining energized equipment;
- Safety guards are removed or bypassed; and
- A worker has to place any part of his or her body in the equipment's point of operation.

Locking out:

Lockout means much more that simply shutting off a machine by throwing a switch. When a machine has been locked out, it means that all energy to the machine has been shut off (there may be more than one type of energy) any energy that has been stored has been released or blocked. The machine is literally locked out and cannot be restarted or released accidentally.



Weekly Safety Meeting

In lockout, a lock is placed on the part of the machine that controls the energy, such as a circuit breaker, switch, or valve. The lock itself cannot be used for any other purpose. That means you can't use just any lock you might find in the workplace to perform a lockout – in fact, all lockout locks shall be of the same appearance so people can easily recognize them for what they are (e.g., by color, brand, etc.). The lock must be strong and sturdy enough to stay in place until it's time for it to be unlocked.

Most important, lockout can be performed only be employees who are trained and certified by the company to do so (known as "authorized" employees). The name of the authorized employee should appear on the lock or tag.

Affected employees are those whose job required them to operate equipment or be in an area where lockout/tagout might be required. They need to understand lockout procedures and why they are important. They should know never to perform a lockout themselves or try to restart locked out equipment.

Tagging out:

"Tagging out" means placing a warning tag or sign on an energy-isolating device. Tagout devices don't provide the same physical barrier to hazardous energy as lockout devices, so it's harder to ensure that they are equally effective.

A tagout device must be securely fastened to the energy-isolating device and must state that the equipment being serviced cannot be operated until it is removed

Trying out:

The "Tryout" requires that you physically attempt to turn on all power switches and devices once the equipment has been locked out. This is your final check and assurance that the equipment has been isolated from all power sources.

Procedures:

Lockout involves certain specific procedures, including:

- NOTIFY Notify all affected employees that you are going to be conducting a lockout/tagout.
- PREPARE Before you begin, be sure you know all the types of energy involved, hazards presented by energy, and how to control the energy.
- SHUTDOWN Turn off machine or equipment.
- ISOLATE Isolate the machine or equipment from its energy source(s). (For example, turn off main circuit breaker.)
- LOCKOUT Apply your lock. Be sure that it holds the isolating device in the "off" or "safe" position.



Weekly Safety Meeting

- RELEASE Release stored energy. Relieve, disconnect, restrain, block, or otherwise ensure, that all energy sources – electrical, mechanical, hydraulic, compressed, etc. – are de-energized.
- VERIFY Try the on-off switch or other controls to be sure the machine won't start. Return the switch to the "off" position.

Common causes of accidents:

- The machine or piece of equipment was not completely shut off before a maintenance or repair operation. Not only must the machine be turned off but also the power source that goes to it.
- The machine was turned on accidentally, either out of carelessness or because the person who turned it on didn't realize that another worker was there and could get hurt.
- The machine wasn't working correctly but wasn't fixed, turned off, locked or tagged, and someone who didn't know about the problem used it.
- Moving equipment wasn't blocked.
- Safety procedures were inadequate or hadn't been properly explained.

Remember the dangers and be on your guard around any machinery and moving equipment. Even if you don't operate the machinery, you could get caught in it and injured if it isn't properly disconnected. Ensure you know the hazardous energy associated with your equipment prior to doing any work on it.

Prevent accidental injury:

- Ensure you know all the energy that could affect the task (electric, gravity, water, pneumatic, hydraulic, steam, etc.)
- Ensure you control the accidental release of the energy prior to working on the equipment through lockout, tagout, or alternative measures identified for your specific equipment.
- Never reach into moving equipment. In even the blink of an eye, you could have a life changing injury.
- Test the energy after you believe it to be isolated. This is one of the most overlooked steps and probably the most important. Employees think they have isolated the energy at the source, but it hasn't been for one reason or another.
- Be aware of your personal safety and the safety of others when working with or around moving equipment and machinery. Always follow proper lockout and tagout procedures, even for a quick or minor repair!

IF IN DOUBT...LOCK IT OUT!!



Weekly Safety Meeting

Safety Meeting Sign-In Sheet

Supervisor:	Subject:	
Location:	Date:	
Conducted By:	Trainer Signature:	

Name (print clearly)	Signature	Comments / Safety Concerns / Training Requests

