# **Lockout / Tagout Field Training**

Worker's servicing or maintaining machines or equipment may be seriously injured or killed if hazardous energy is not properly controlled. Injuries resulting from the failure to control hazardous energy during maintenance activities can be serious or fatal! Injuries may include electrocution, burns, crushing, cutting, lacerating, amputating, or fracturing body parts, and others.

### Let's start with, what is Lockout / Tagout

In short it is turning off, blocking, disconnecting, shutting down any power or energy that could cause a machine or a part of a machine to move or have power at the location where you are going to work. It is also securing that power so it can not be turned back on until you are ready.

## What kind of power?

Any kind of power is included. It could be electric, hydraulic, steam, air, built-up pressure, or anything that could cause movement or electric shock.

## How can you lock it out?

Depending on the machine or item, it could be as simple as turning off a switch or as complex as disconnecting pipes, relieving pressure, bleeding lines, and installing blind flanges. Which ever way is required you should ensure it can't be turned back on until you give the ok.

#### What is Tagout?

This is simply installing a tag or other marking that tells the public or other workers, "do not turn this on" or "do not touch". This tag should only be removed by the person that installed it. Only you know why you tagged it and when it should be untagged. Only you know when it is safe to turn on. This can be as simple as a paper tag or as complex as a padlock.

## **Examples of when to Lockout Tagout.**

Let's say a mechanic is going to work on a milling machine or under a loader. Just taking the key out of the machine is not enough. Someone else may have a key and not know you are working when they start up the machine. It could be a deadly problem. So, you would not only remove the key, but you would tag the machine, so no one moved anything. Keep in mind someone can lower the bucket on a loader or backhoe without starting the machine.

Let's say at the hot-mix plant you are going to change out a breaker. You would go to the master electric switch and turn it off, then place a tag or a lock on the switch so it would/could not be turned on by anyone. Only then can you ensure it is going to stay safe.

## Who can turn a machine back on or reenergize?

Only the person that locked it out or tagged it out can remove the lock or tag.

Every piece of equipment is different so only someone trained in maintaining that machine will know the proper lockout/tagout requirements. That is why only the person who locks out a machine should remove the restriction.

## Another simple example:

Let's say a carpenter needs to change out the blade on a skill saw. It's plugged into an extension cord and the extension cord is plugged into the wall. In this case the carpenter would unplug the saw from the extension cord and keep the cord in his sight always while he changes out the blade.

Let's say a stand grinder in the shop needs to have a wheel replaced and it is direct wired. Now the operator would need to go back to the energy source disconnect and turn it off. To keep it from being accidently turned back on, he would lock the switch so it could not be turned on or place a tag, sign, tape, or something saying, "do not turn on". You would not want your hands on the wheel and have someone flip the switch on.

## Accidents can be stopped.

Accidents happen in most cases because people don't stop and think. They don't take time to look and understand what is going on before they act. Locking out a machine or placing a tag on a switch helps keep that from happening.

Look for tags or locks. Know that only the person putting the tag or lock on the equipment is allowed to remove it. YOU CAN NOT. If you see a tag and need to use the equipment, find out who locked it out and only talk to them about having it removed.

Always think, what if

What if someone plugged it in?

What if someone moves the handle or lever?

What if someone starts it?

It could happen if you don't have it locked or tagged.