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OSHA - Lockout Tagout Forms of Hazardous Energy

OSHA's Lockout/Tagout Standard – Forms of Hazardous Energy

The OSHA Lockout/Tagout standard applies when we perform servicing or maintenance on certain pieces of equipment or machinery. Most of us recognize that electricity is the primary source of hazardous energy we face, but it's certainly not the only one. Here is an overview of some of the forms of actual AND potential hazardous energy we may have to deal with when we perform work covered by this standard:

Electrical energy – Electricity directly drives many of the motors on our equipment, but it also powers many of our switches and valves. In addition, some equipment with certain types of rectifiers or capacitors may retain potentially hazardous electrical energy even after we disconnect the main power supply.

Pneumatic energy – Air pressure is used to power some cylinders and control switches. It is critical to recognize that in some cases, this form of power could still be present even after we turn off power to the compressor, disconnect a supply line, or turn off a valve.

Hydraulic energy – Just like with pneumatic power that we just discussed, hydraulic pressure is also used to move cylinders and switches. And it, too, can remain under pressure even after the hydraulic pump has been de-energized.

Mechanical energy – Turning flywheels, springs under compression or tension, cams; these are all forms of mechanical energy that must be released or restrained on some equipment and machinery, even after the main power source has been de-energized.

Thermal energy – When the temperature rises, many gases will expand. If this takes place inside of a closed pipe, supply line, or vessel, a corresponding increase in pressure can occur. This increased pressure could result in a nasty surprise if we have not anticipated and controlled this form of energy before, we start working on the equipment.

Chemical energy – As with thermal energy, some chemical reactions create heat and/or pressure (think of the gas bubbles generated when an Alka-Seltzer is dropped into a glass of water). Think of how that could be hazardous if this reaction occurs inside of a sealed vessel, pipe, or supply line; and finally,

Gravity – An object, such as the block and hook of an overhead hoist, the upper die of a press, or the elevated mast of a forklift, could come crashing down even after the main power supply has

been turned off. All it would take is the release of a brake, the activation of a valve, or the loosening of a hose or supply line.

OSHA - Lockout Tagout Standard - Communication is Key to Safety

OSHA’s Lockout/Tagout Standard – Communication Is Key to Safety

It’s often said that effective communication is the key to safety. In fact, it is so important that OSHA’s Lockout/Tagout standard contains several requirements for Authorized Employees (those who apply Lockout/Tagout devices to equipment and machinery) to communicate with Affected Employees (those who operate equipment the equipment or machine that is being locked or tagged out). Here is an overview of some of those requirements:

Being able to identify who applied locks and tags to energy isolation devices allows Affected Employees to know who to contact if they have a question or concern about their machinery or equipment. Therefore, OSHA requires that all locks, tags, and other protective hardware used in the workplace to clearly identify the Authorized Employee who applied these devices. This can be achieved by placing the Authorized Employee’s name on their locks and tags, as well as by other methods such as utilizing a written log with assigned serial numbers of locks used by Authorized Employees. (Briefly discuss the methods used to identify lockout devices used at your location).

Authorized Employees must notify all Affected Employees that they will be applying their lock or tag to those employees’ equipment or machinery before starting work covered under the Lockout/Tagout standard. This will help assure the Affected Employees do not tamper with locks and tags or try to reactivate their equipment as it is being serviced or repaired. This should also put the Affected Employees on notice that they are to remain clear of their equipment or machine while it is being serviced or repaired.

Authorized Employees must also notify all Affected Employees before they remove their lock or tag and reactivating the equipment or machinery. This lets the Affected Workers know they must stay clear of the equipment as it is restarted by the Authorized Employee, so they do not get injured. The Authorized Worker must also let them know when they are free to resume using their equipment or machinery for normal operations.

By following these simple steps, we are always able to identify the Authorized Employee who applied a lock or tag to our equipment or machine. Following these steps can also lessen the chance of miscommunication between Authorized and Affected Employees. This is extremely

important because as we said earlier, effective communication is the key to a safer workplace.

Working Safely with Portable Circular Saws

Working Safely with Portable Circular Saws

Many of the injuries suffered by users of hand-held circular saws don’t require just a Band-Aid; they often require stitches, surgery, or sometimes months of physical therapy to help the victim recover the ability to use their hand. So here are a few tips to remember every time you pick up a portable circular saw:

- Inspect the power cord of your saw before use to insure there are no breaks or cuts in the jacket, and that the plug is not damaged. Also make certain to position the cord so it does not get near the turning blade or get damaged by falling material. Immediately turn in equipment found with defects so the cord can be replaced by an authorized person.

- Make certain the blade is the proper size and speed rating for the brand and model of circular saw you are using, and that it is suitable for use on the type of materials you will be cutting. Also make sure the blade is firmly secured in place, and that there are no broken teeth, bent or broke sections, or other damage.

- ALWAYS maintain in place the manufacturer’s guards on your saw. Removing, altering, or wedging the guard in the open position can expose portions of the turning blade. And take the time to adjust the base plate so that the amount of blade protruding below the material being cut is minimized.

- Wear all required personal protective equipment such as approved safety glasses, or goggles to protect your eyes and hearing protection when operating a saw.

- Always secure the material you are cutting to a stable surface with clamps, where applicable, so that it does not move around as you are operating the saw. If the material being cut moves or drops, it can pinch the blade and cause it to jam, break, or suffer other damage; it can also cause the saw to kick-back and make contact with you.

- Make sure to hold the saw with two hands when operating; this helps you control the saw and helps keep your fingers away from the moving portion of the blade that extends below the material being cut. Also, allow the saw blade to come to a complete stop before you withdraw the saw from the material being cut.