

SAFETY MEETING TOPIC

This form shall be completed and kept on file

Job Name _____ Location _____ Job No. _____
Meeting Leader _____ Title _____
Date Held _____ Place _____ Time _____
Subject of Meeting _____ LOCKOUT/TAGOUT _____

There may be occasions where you will be exposed to some type of hazardous energy. Hazards, such as those associated with working near unprotected electrical equipment, are most often associated with Lockout/Tagout. But a job may take you into a confined space such as a tank or tunnel where hazardous energy is a problem. In some cases, the hazards in a confined space can be controlled with Lockout/Tagout.

Lockout/Tagout procedures were developed to prevent the accidental release of energy. Used correctly, these procedures allow repairs and maintenance to be performed without endangering your life. An estimated 120 deaths and 60,000 injuries could be prevented every year through the use of Lockout/Tagout procedures.

THE LOCKOUT PROCEDURE

Step 1 – Preparation: Lockout and tagout procedures should only be carried out by “authorized employees.” Before implementing the Lockout/Tagout procedure, you must fully understand:

- The type and magnitude of the energy to be controlled; and
- The methods and means of controlling the hazardous energy.

Step 2 – Notification: Before the application of the lockout or tagout devices, notify all affected personnel. Tell workers that the energy control procedure is going to be used and reasons why.

Step 3 – Shutdown: Shut down equipment in an orderly manner. This may mean simply turning off the equipment. When the equipment is part of a production or manufacturing process, all parts of the operation must be considered. An orderly shutdown will avoid increased hazards when the equipment is deenergized.

Step 4 – Isolation: Locate all energy isolating devices. Operate the energy isolating devices so that the equipment is completely isolated from the energy source. When complete, all devices will be in the “safe” or “off” position.

Step 5 – Application of Locks and Tags: Attach locks and/or tags to the energy isolating device so the device is held in the “safe” or “off” position. Separate locks or tags must be used for each authorized employee.

Step 6 – Control Stored and Residual Energy: Relieve, disconnect and restrain all stored or residual energy. Remember, hazardous energy can be found in springs, elevated machine members, capacitors, rotating flywheels, hydraulic systems, air, gas, steam and water pressure. This energy must be dissipated or restrained. Operator's and service manuals can assist you in safely controlling the specific energy hazards. Common methods to restrain or dissipate stored energy are repositioning, blocking, and bleeding down systems.

Know in advance the tools and equipment needed to control each hazard. Be sure they are in proper working order and able to perform the tasks you expect of them.

Step 7 – Verification: Check to be sure that all personnel are in a safe location. Verify that the equipment is properly isolated and all hazardous energy is safely controlled. Operate push buttons and other controls to verify isolation. Check circuits with electrical meters. Inspect springs, pressure gauges, the location of moving parts and other sources of stored energy. Be sure to return operating controls to the neutral or off position after the test. Each machine and piece of equipment is different. Follow the instructions found in the operator's and service manual. Once you are absolutely sure that the energy is isolated and safely controlled, proceed with the maintenance and service activities.

WARNING: Some machinery and equipment can re-accumulate stored energy even after the system has been deenergized. If there is a possibility of stored energy building to a hazardous level, continue verification until maintenance or service is completed or until the possibility of accumulation no longer exists.

RELEASING ENERGY CONTROLS

Step 1 – Inspection: Inspect the work area. Be sure all non-essential items such as tools, parts and cleaning supplies have been removed. Check to be sure that all machine and equipment components are ready for operation. Be certain all employees have been safely positioned or removed.

Step 2 – Notification: Notify all affected employees that the lockout/tagout devices are being removed.

Step 3 – Remove Locks and Tags: Remove locks and tags. The lockout or tagout device should only be removed by the authorized employee who applied it.

TAGOUT SYSTEMS

Tagout systems may be used if the isolating device isn't capable of being locked out. Under certain conditions, tagout may be used alone even when the isolating device is capable of being locked out. In this case, full employee protection must be provided.

Full employee protection means the level of safety provided by the tagout system is equal to that of a lockout program. One of the methods to be used for full employee protection involves attaching tags at the same location locks would have been. Additionally, all OSHA required tagout related provisions must be complied with as well as any measures needed to provide equivalent protection. The additional safety measures might include removing an

isolating circuit element, blocking a controlling switch, opening an extra-disconnecting device or removing a valve handle to reduce the likelihood of inadvertent start-up.

TAGOUT DEVICES

Tags and the means used to attach them must be strong enough to prevent accidental removal. The attachment device must also be non-reusable, attachable by hand, self-locking and non-releasable. They must also be capable of passing a 50 lb. breaking test. One-piece, all environment-tolerant nylon cable ties work well for attachment devices.

Tagout devices have to warn against hazardous conditions if the equipment is energized. Wording such as "Do Not Start," "Do Not Open," "Do Not Close," "Do Not Energize," or "Do Not Operate" has to be included on the tag.