Lockout/Tagout Program

The Risk

Energy sources including electrical, mechanical, hydraulic, pneumatic, chemical, thermal, and others in machines and equipment can be hazardous to workers. During the servicing and maintenance of machines and equipment, the unexpected startup or release of stored energy can result in serious injury or death to workers.

Workers servicing or maintaining machines or equipment may be seriously injured or killed if hazardous energy is not properly controlled. Injuries may include electrocution, burns, crushing, cutting, lacerating, amputating or fracturing body parts, and others.

The Controls

Lockout/Tagout Program

The OSHA standard for Control of Hazardous Energy, otherwise known as Lockout/Tagout (LOTO), is 29 CFR 1910.147, which outlines measures for controlling different types of hazardous energy. The LOTO standard establishes the employer's responsibility to protect workers from hazardous energy. The standard gives each employer the flexibility to develop an energy control program suited to the needs of the particular workplace and the types of machines and equipment being maintained or serviced. LOTO is generally accomplished by de-energizing machines and equipment and affixing the appropriate lockout or tagout devices to energy isolating devices.

Workplaces should develop, implement, and enforce a lockout/tagout program and procedures. Main points of the program/procedures include the following:

- Identifying all energy sources before beginning work on equipment
- De-energizing/isolating all energy sources before beginning work on equipment
- Lockout (or Tagout) all energy isolation points to provide a positive means to prevent premature re-energizing of that equipment
- Verifying the de-energized state of equipment before beginning work on equipment
- Transferring control of equipment to work group during the job and back to the equipment owning group at the end of the job.
- Provide effective training as mandated for all employees covered by the standard. The training must cover at least three areas: aspects of the employer's Lockout/Tagout program; elements of the Lockout/Tagout procedure relevant to the employer's duties or assignment; and the various requirements of the OSHA standards related to lockout/tagout.

- Comply with the additional energy control provisions in OSHA standards when machines or equipment must be tested or repositioned, when outside contractors work at the site, in group lockout situations, and during shift or personnel changes.

Energy Isolation Devices

While performing maintenance or service, each person whose body, in part or in whole, may be exposed to hazards as the result of the unexpected release of energy must have personal control over the energy source(s). This is accomplished through the use of a padlock or tag applied to a device designed to isolate the energy source (Energy Isolation Device). In most cases, this will be a pad lock or tag applied to an electrical disconnect switch or to an electric breaker to prevent activation of the switch or breaker.

Other cases could involve the following:

- application of a pad lock to an isolation device designed to prevent a valve from being opened.
- application of a pad lock to a mechanical stop designed to prevent movement.

Lockout Locks

Energy Isolation Device

Tag for Lockout

(Tagout devices may be used in lieu of lockout devices only if the tagout program provides employee protection equivalent to that provided through a lockout program.)

Best practices for using tagout or lockout devices:

- Ensure that new or overhauled equipment is capable of being locked out.
- Develop, implement, and enforce an effective Tagout program if machines or equipment are not capable of being locked out.
- Ensure that Lockout/Tagout devices identify the individual user. The Lockout/Tagout procedure should permit only the employee who applied a lockout/tagout device to remove it. See 29 CFR 1910.147(e)(3) for exception.
- Inspect energy control procedures at least annually

Disclaimer

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