5-STEPS TO AN EFFECTIVE LOCKOUT PROGRAM

Our thanks to Brady for allowing us to reprint the following article.

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You've got some safety padlocks and lockout tags, a small assortment of circuit breaker and valve lockout devices, and you may have even wall-mounted several lockout stations in your facility. So you should be covered for the OSHA Lockout/Tagout inspection, right? And you should be good to go with your employees, correct?

Possibly so. But then again, quite possibly not.

Did you know that during OSHA's 2010 fiscal year none of the top five most frequently OSHA-cited sections of its Control of Hazardous Energy standard were specifically about the protective materials and hardware (namely the safety padlocks and lockout devices)?

Instead, the top five cited sections concern:

1. Failure to establish and implement a written PROGRAM
2. Failure to develop, document and utilize PROCEDURES
3. Failure to conduct a PERIODIC INSPECTION of the energy control procedure
4. Failure to provide TRAINING as described by OSHA
5. Failure to clearly OUTLINE the SCOPE and rules to be utilized, and the means to ENFORCE compliance.

That's not to say that the products designed and used for lockout aren't important, as they certainly are. It does, however, speak to the fact that Lockout compliance is first and foremost about having a sound program and machine-specific procedures in place, along with comprehensive training and effective communications for your employees.

Lockout/Tagout is a major OSHA-inspection focus. In fact, it remains the #1 most cited violation for general industry even after twenty years in force. But, rather than focus on the negative aspect of non-compliance and citations, focus instead on this: comprehensive and thoroughly-followed LOTO programs:

- SAVE LIVES – preventing an estimated 250,000 incidents, 50,000 injuries and 120 fatalities annually!
- CUT COSTS – significantly; both lost employee time and insurance costs
- IMPROVE PRODUCTIVITY – minimizing equipment downtime
- are BEST PRACTICE – being widely adopted across industries and industrialized countries

Best Practice 5-Step Plan

Do you want to be in compliance with both the letter of the OSHA law and the spirit of it so as to provide a safe work environment for your employees? Certainly! One way to accomplish both is to use this 5-Step Plan to enact an effective energy control program. Doing so will bring your organization into compliance and put you on the road to the greater benefits noted above.

Briefly, the 5-steps are as follows:

- STEP 1: Develop and document your energy control policy/program
- STEP 2: Create and post written, equipment-specific lockout procedures
- STEP 3: Identify and mark all energy control points
- STEP 4: Train your employees, communicate and conduct periodic inspections
- STEP 5: Equip your employees with the proper lockout tools and warning devices

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Step 1: Develop Energy Control Policy/Program

Synopsis of Regulatory Standard:
29 CFR 1910.147 (c)(1) The employer is to establish an energy control policy/program. That summary program is to address energy control procedures, employee training and periodic inspections, all of which help to ensure that the machines or equipment are properly isolated from their energy sources, and rendered inoperative prior to any servicing or maintenance.

Successful Program Development:

OSHA has a Lockout/Tagout Tutorial on its www.osha.gov website that provides additional advice on developing an energy control policy/program. Brady also offers a downloadable Control of Hazardous Energy Program template that can serve as a guide as you develop your own comprehensive energy control program.

This written lockout document is your starting point; it establishes the 'nuts and bolts' of your overall lockout program. After you've completed this summary, you can continue with what is possibly the most important step for your workers…writing machine-specific procedures.

Step 2: Written, Equipment-Specific Lockout Procedures

Synopsis of Regulatory Standard:

29 CFR 1910.147 (c)(4)(i) Procedures shall be developed, documented and utilized for the control of potentially hazardous energy when employees are engaged in locking out equipment. A separate procedure must be created for each piece of equipment, or each group of similar equipment as defined, except for equipment that meets a rigid set of exceptions.

Related Incident & OSHA Citation:

OSHA proposed $112,500 in penalties to a large employer for repeat violations, including failure to develop proper energy control procedures. Less than three months earlier, the same organization was cited for $2.78 million in proposed fines for 42 willful violations of the lockout/tagout standard, including failure to utilize lockout procedures before attempting to clear equipment jams, and failure to provide training to 4 employees responsible for clearing jams. Tragically, an employee had been killed in a related accident.

Successful Program & Procedure Development:

Lockout procedures must be documented and must identify the equipment covered. The procedures should detail specific steps for shutting down, isolating, blocking and securing equipment to control hazardous energy. Steps for the placement, removal and transfer of lockout tagout devices should also be included.

Graphical lockout procedures, which include photos, are best practice in the industry today, as they provide clear, visually-intuitive instructions for employees to follow. A typical medium sized facility will have several hundred pieces of equipment – each of which requires a specific lockout procedure. The equipment list will usually include boilers, chillers, generators, conveyors, automated and production equipment, pumps, compressors and more.

Many companies trust their written procedure development to outside technical experts, who can evaluate the facility's operating and production equipment and develop complete and correct lockout procedures for the entire range.

Brady's Graphical Lockout Procedure-Writing Service, for example, is a comprehensive service in which Brady's engineers will conduct a thorough equipment hazardous energy assessment, develop all the necessary equipment-specific procedures and accompanying energy source location tags, and install them throughout a facility.

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For facilities that have the time, staffing resources and inclination to develop the procedures themselves, Brady also offers its Lockout Pro™ software. This software allows users to create and manage equipment-specific procedures, using a clear and easy-to-follow visual format.

Step 3: Identify Energy Control Points

Synopsis of Standard:
29 CFR 1910.303 (e) and (f) Subpart: Electrical. All disconnecting means must show the magnitude and shall be legibly marked to indicate the purpose, with exceptions.
ANSI Z244.1-2003, Control of Hazardous Energy, states that all energy isolating devices should be adequately labeled or marked unless they are located so that their purpose is clearly evident. Identification shall include the machine supplied and the energy type and magnitude.

Related Incident & OSHA Citation:

OSHA cited a manufacturer for failing to protect workers from electrical hazards that contributed to the death of a worker. The employee was working on electrical equipment that had not been properly labeled and disconnected. OSHA issued a willful citation for failing to properly label electrical equipment, and a serious citation for failing to have adequate procedures in place to render machinery inoperable while maintenance and repair work were performed.

Successful Training, Communication & Inspections:

Locate and mark all energy control points, including valves, switches, breakers and plugs, with permanently placed labels or tags. Cross reference each label and tag with the corresponding step # in the posted energy control procedure for that equipment. Include information about the magnitude and purpose of the control point as stipulated by OSHA for electrical disconnects and recommended by ANSI for all isolating devices. Brady offers a complete line of labels and tags for various energy sources being disconnected. For greatest convenience, Brady's portable and industrial label makers will produce custom labels, and also link to the Lockout Pro procedure output.

Step 4: Training, Communication & Inspections

Synopsis of Standard:
29 CFR 1910.147 (c)(7) The employer shall provide training to ensure that the purpose and function of the energy control program are understood by employees … (iv) The employer shall certify that the employee training has been accomplished and is being kept up to date … Standard: 29 CFR 1910.147 (c)(6) The employer shall conduct a periodic inspection of the energycontrol procedure at least annually.

Related Incident & OSHA Citation:

OSHA conducted an investigation following the death of a fleet mechanic who was pinned between two trucks while performing maintenance on one of the vehicles at the company's worksite. "This was a preventable tragedy" stated the director of OSHA's area office. OSHA issued one willful violation for alleged failure to implement and train employees on a lockout/tagout program to be used when performing vehicle maintenance.

Successful Training, Communication & Inspections:

First, establish formal training programs for each of the three categories of employees for lockout; 'Authorized', 'Affected' and 'Other' employees. OSHA provides advice on how to train, and verify that the training is up-to-date.

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Brady offers interactive e-Learning training courses that provide comprehensive educations for both Corporate Safety Leaders and their Authorized/Affected workers. Other communication products, including DVD's, handbooks and posters, are also available.

Step 5: Provide Proper Protective Products

Synopsis of Standard:
29 CFR 1910.147 (c)(5) Lockout devices must be provided by the employer, be standardized by size, shape or color, be distinguishable from locks used for other purposes, identify the individual who applied the lock, be durable, be strong enough to prevent removal except by using excessive force and remain under the exclusive control of the individual who attached them. 29 CFR 1910.147 (c)(5)(iii) Tagout devices shall warn against hazardous conditions if the machine or equipment is energized and shall include a legend such as the following: Do Not Start … Do Not Operate.

Related OSHA Citation:

OSHA opened an investigation after receiving notification that an employee was crushed while servicing a hydraulic press that had been disabled but not protected against accidental energizing by locking out potentially hazardous energy sources. OSHA issued four willful- and fifteen serious citations, alleging, in part, that the company failed to control potentially hazardous energy during machine repair or maintenance, and was deficient in having personal identification of lockout devices.

Equip Your Employees with the Proper Lockout Tools & Warning Devices:

Ultimately, it's the proper and religious application of the lockout hardware per the established procedures that makes for a successful lockout program. To this end, it's very important to know and document specifically what devices are acceptable for use at each and every lockout point. There is a tremendous range of sizes and shapes of valve operating handles, circuit breaker switches and various other energy control means. A leading lockout device provider will have developed product series that properly fit the majority of these. Brady takes it a step further by publishing a Circuit Breaker Lockout Reference Guide, and other fit-advisory information. Importantly, some products are more versatile than others, fitting a broader range of the spectrum.

Brady is the global leader in providing Lockout/Tagout solutions. Brady was first to respond to the new OSHA legislation in 1990, and has maintained its position as the leading Lockout solutions provider ever since. Today, Brady provides the broadest, most comprehensive product range for lockout; this includes OSHA-compliant locks, tags and lockout devices to cover almost every application.

As this article reminds us, it's not just about the products, and it's not just about avoiding a fine. Establishing and maintaining a comprehensive Lockout/Tagout program that is understood and embraced by your employees will cut costs, improve productivity and, above all, potentially avert an incident or employee injury.

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