

The Safety & Health Advisor

Spring 2024



LOCKOUT/TAGOUT (LOTO): Important Compliance Items Often Overlooked

The Occupational Health & Safety Administration's (OSHA) standard for Control of Hazardous Energy Sources (CHES), commonly known as "Lockout/Tagout," (29 CFR 1910.147), was established over 30 years ago. OSHA's language states "This standard covers the servicing and maintenance of machines and equipment in which the unexpected energization or startup of the machines or equipment, or release of stored energy could cause injury to employees. The standard establishes minimum performance requirements for the control of such hazardous energy."



Most companies have a written Energy Control (Lockout/Tagout) Program with procedures, employee training and lockout/tagout devices; however, oftentimes when the program elements are reviewed during a loss control visit (or possibly during an OSHA on-site inspection) deficiencies are found with certain elements, which could result in injury, regulatory violations and/or penalties.

Highlights in this Issue

Lockout/Tagout: Items Often Overlooked

Eye Protection: See the Light

Hard Hats vs. Safety Helmets in Construction

2024 Area Safety Conferences

Mental Health in the Workplace

In this article, three (3) specific program elements, (often overlooked or not fully implemented), are highlighted, including machine specific procedures, periodic inspection and employee training and have all been subject to OSHA citations.

The purpose of a lockout/tagout program is to ensure that all machinery and equipment is brought to a zero-energy state prior to performing any maintenance or service work to avoid employee injury. It does not apply to normal production operations.

What is often not recognized is that energy is more than just electricity; it includes other types of sources such as mechanical, pneumatic, hydraulic, nuclear, chemical, thermal, stored (i.e., batteries, capacitors, springs) and even gravity. These might include locking out a circuit breaker in a specific electrical panel, closing a designated valve or disconnecting a pressurized pneumatic line, bleeding or closing a pressurized hydraulic line, discharging a capacitor, disconnecting a backup battery, or blocking a heavy part that could fall by gravity are some examples.

All energy sources must be identified, and the steps needed to bring the equipment to zero-energy state (and also to be safely restored/released from LOTO) must be included in a specific written procedure (i.e., machine-specific procedure). A clear description and location for all energy source disconnects should be provided in the written procedure.

The Safety & Health Advisor

Spring 2024

OSHA does provide some exceptions to written procedures such as for minor tool changes and adjustments or work on some “cord and plug” connected electrical equipment, but you should refer to 1910.147(a)(2) to be certain of the exception requirements in your specific situation.

Lack of periodic inspection is frequently found as a violation by OSHA. Despite employers having a written LOTO program with other elements in place they often miss this one. This is addressed under 1910.147 (c) (6), which states: “The employer shall conduct a periodic inspection of the energy control procedure at least annually to ensure that the procedure and the requirements of this standard are being followed.”

This must be done by an authorized employee other than those actually doing the LOTO procedure. “The employer shall certify that the periodic inspections have been performed. The certification shall identify the machine or equipment on which the energy control procedure was being utilized, the date of the inspection, the employees included in the inspection, and the person performing the inspection.” The periodic procedure inspections do not have to be done at the same time and it is suggested to audit a few procedures each month until they have all been completed for the year.

Another common incomplete item is employee training. Oftentimes the individuals performing the lockout/tagout function, known as “authorized” employees, have received appropriate training on the program, procedures and devices, but individuals that are known as “affected” (such as machine operators or line workers) or “other” personnel have not been included in the LOTO training program or their training has not been documented.

The standard defines these employee categories for training as follows:

- Each authorized employee shall receive training in the recognition of applicable hazardous energy sources, the type and magnitude of the energy available in the workplace, and the methods and means necessary for energy isolation and control.
- Each affected employee shall be instructed in the purpose and use of the energy control procedure.
- All other employees whose work operations are or may be in an area where energy control procedures may be utilized, shall be instructed about the procedure, and about the prohibition relating to attempts to restart or reenergize machines or equipment which are locked out or tagged out.

It is important that an authorized employee or a person with competency in lockout/tagout requirements review and evaluate your lockout/tagout program and procedures to ensure that all elements have been addressed to prevent injury to personnel and compliance with OSHA regulations. Your Atlantic Charter Safety and Health Consultant can also help in this matter.

The following Internet links may be helpful to review when evaluating your program.

OSHA Standard 1910.147

http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9804

OSHA eTool – Lockout/Tagout Interactive Training Program

<http://www.osha.gov/dts/osta/lototraining/index.html>

The Safety & Health Advisor

Spring 2024

Eye Protection: See The Light

The National Institute for Occupational Safety and Health (NIOSH) reports that every day about 2,000 U.S. workers sustain job-related eye injuries that require medical treatment. According to Bureau of Labor Statistics (BLS) data, there were 18,510 eye-related injury or illness cases that resulted in at least one day away from work in 2020. Contact with objects or equipment led to the majority (11,980 cases) of eye injuries and illnesses requiring days away from work in 2020. Of these cases, 60 percent resulted from the worker rubbing or being abraded by foreign matter in the eye. Another 36 percent resulted from the eye being struck by an object or equipment. Most are preventable!

The Occupational Safety and Health Administration (OSHA) requires workers to use eye and face protection whenever there is a reasonable probability of injury that could be prevented by such equipment. Personal protective eyewear, such as goggles, face shields, or safety glasses must be used when an eye hazard exists. The necessary eye protection depends upon the type of hazard, the circumstances of exposure, other personal protective equipment (PPE) used and individual vision needs.



Workplace eye protection is needed when the following potential eye hazards are present: projectiles (dust, concrete, metal, wood and other particles); chemicals (splashes and fumes); radiation (especially visible light, ultraviolet radiation, heat or infrared radiation, and lasers); and bloodborne pathogens (hepatitis or HIV) from blood and body fluids.

Some working conditions include multiple eye hazards. Proper eye protection takes ALL hazards into account.

Selection of protective eyewear appropriate for a given task should be made based on a hazard assessment of each activity (see OSHA 29 CFR 1910.132 - General requirements).

Nonprescription safety glasses. Safety glasses provide eye protection for general working conditions where there may be dust, chips or flying particles. Side shields and wraparound-style safety glasses can provide additional side protection. Safety lenses are available in plastic, polycarbonate and Trivex™ materials.

Goggles. Goggles provide protection from impact, dust and chemical splash. Like safety glasses, safety goggles are highly impact-resistant. In addition, they provide a secure shield around the entire eye and protect against hazards coming from any direction. Goggles can be worn over prescription glasses and contact lenses.

Face shields and helmets. Full face shields protect workers exposed to chemicals, heat or bloodborne pathogens. Helmets are used for welding or working with molten materials. These should not be the only protective eyewear. They need to be used in conjunction with safety glasses or goggles, so the eyes are protected when the shield is lifted.

Special protection. Helmets or goggles with special filters to protect the eyes from optical radiation exposure should be used for welding or working with lasers.

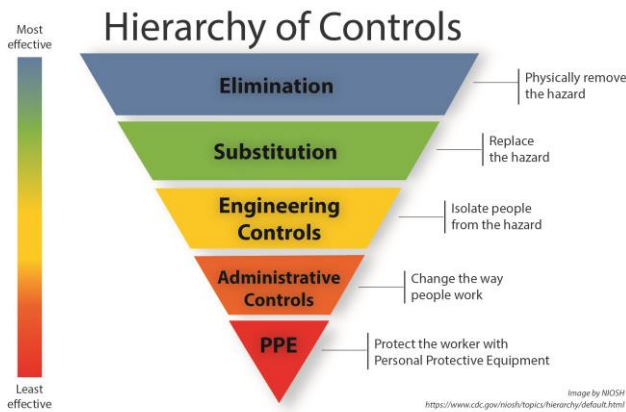
Some workers may need prescription eyewear to see on the job. If a worker needs prescription eyewear, he/she can use a pair of goggles that fit over their prescription glasses or purchase prescription safety eyewear suited for their needs.

The Safety & Health Advisor

Spring 2024

OSHA's Eye and Face Protection webpage has a plethora of resources on this topic, including relevant standards, hazards and solutions. Personal Protective Equipment includes information on employee training requirements for all ppe, including protective eyewear.

Among the Hierarchy of Controls, ppe is the least effective measure to prevent eye injuries (see illustration below). Engineering controls (e.g., guards) are more effective than ppe.



On a related note, May is Healthy Vision Month. CDC's Vision Health Initiative partners with the National Eye Institute to encourage all Americans to make vision a health priority this Healthy Vision Month.

Hard Hats vs. Safety Helmets in Construction: A Head-to-Head Comparison

OSHA Construction Standard 29 CFR 1926.100(a) specifies that employees working in areas where there is a possible danger of head injury from impact, or from falling or flying objects, or from electrical shock and burns, shall be protected by protective headwear.

According to 29 CFR 1926.100(b), protective headwear must meet the specifications outlined in the American National Standard for Industrial Protection ANSI/ISEA Z89.1-2014.

It was prepared by members of the International Safety Equipment Association's (ISEA) Head Protection Group and approved by a consensus review panel comprised of technical experts, unions, construction industry and other user groups, test labs, and certification and government agencies.

It includes specifications for helmets designed to offer protection from lateral impact and top-only impact. Both type I and type II designs are tested for head impact attenuation and penetration resistance. Type I are designed to reduce force from an impact to ONLY the top of the head (protection against falling objects). However, type II helmet performance requirements also include criteria for energy attenuation from impacts from the front, back and sides, AND the top, off-center penetration resistance, and chin strap retention.

The traditional hard hat, known as "Type I," is comprised of a hard outer shell paired with an adjustable inner suspension system.

Type I Certified "Traditional" Safety Hardhat



Type II Certified Safety Helmet



The Safety & Health Advisor

Spring 2024

Although more expensive than traditional hard hats, safety helmets are typically lighter and less bulky than traditional hard hats, leading to less discomfort and fatigue during extended use. They also tend to have better built-in ventilation features making them more comfortable on hot days. Many designs allow them to be fitted with integrated lights, and specialty eye and face shields, and hearing protection as well. Finally, chin straps on safety helmets offer significant advantages for keeping the headwear in place to better protect the workers head in the event of a slip, trip, or fall!

Special Note:

In December 2023, the U.S. Department of Labor's Occupational Safety and Health Administration announced their inspectors are switching from traditional ANSI type I- certified hardhats to type II- certified safety helmets. Although OSHA has not made safety helmets mandatory, increasingly general contractors have started requiring their use for all subcontractors on their projects, and this trend is expected to continue.

For additional information refer to the OSHA Safety and Health Information Bulletin SHIB 11-22-2023

https://www.osha.gov/sites/default/files/publications/safety_helmet_shib.pdf

NIOSH blog post: Construction Helmets and Work-related Traumatic Brain Injury – has some useful data on TBI, info on helmet design, etc.

<https://blogs.cdc.gov/niosh-science-blog/2022/11/10/construction-helmets/>

2024 New England Safety Conferences

The National Safety Council New England Chapter (NSCNEC) is holding its annual New Hampshire Safety & Health Conference on Tuesday and Wednesday, May 21-22, 2024, in Manchester, NH at the Doubletree by Hilton Hotel. Registration is now open for in-person attendance for one or both days. There are several general and breakout sessions on assorted topics planned for both general industry and construction as well as a vendor expo. You do not have to be a National Safety Council (NSC) member or operate only in New Hampshire to attend. The registration fee depends on whether your organization is a NSC member and what date you register. Early bird discount rate until April 19, 2024. The conference brochure providing schedule, session information, registration fees and enrollment process is provided at the following link:

<https://www.nscnec.org/nh-conference>

It is also time to mark your calendars for the annual OSHA Summer Summit to be held in-person at the campus of UMass-Amherst on Wednesday, June 12, 2024.

Website link:

<https://umass.irisregistration.com/Site/>

Check the website again in April for more information and registration details. This has been a highly attended conference in the past (capped at 500 attendees), at a reasonable cost, featuring safety related vendors and several sessions for current safety topics. It should be a full day of quality safety and health training and networking!

The Safety & Health Advisor

Spring 2024

Mental Health in the Workplace: Don't Stress Out

Addressing mental health issues in the workplace is crucial for promoting a healthy and productive work environment. Having a healthy state of mind is just as important as your physical health. Studies have shown that people with serious mental conditions are at high risk of experiencing chronic physical conditions. Likewise, people with poor physical conditions are at risk of developing poor mental health.

The [National Institute of Mental Health](#) reports that one in five Americans are living with some type of mental illness. These illnesses range in degree from mild to severe anxiety and depression. Anxiety is the highest reported mental health disorder in the U.S. with 42.5 million Americans suffering from this illness. Common drivers of suicidal thoughts reported by workers include family and relationship problems, financial hardships, perceived lack of support, alcohol and drug abuse, social disconnection, child custody, and legal issues.

The [American Psychological Association](#) suggests through research that negative impacts or stress levels are due to lack of paid time off or sick leave for 50% of employees. Some causes associated with poor mental health led to anxiety, depression, and burnout. Here are some ways to better address emotional well-being in the workplace:

1. Create a supportive work culture: Employers should aim to create a work culture with open communication, being empathetic, encouraging breaks, and building a sense of community within the workplace.
2. Provide resources and support: These include employee counseling programs, education programs, and access to specialized professionals. These resources should be communicated and accessible as they provide support when needed.

3. Promote work-life balance: Employers should encourage employees to maintain a healthy work-life balance through benefit programs, team building exercises, or flexible schedules. These can help reduce stress and improve the sound of mind.

If employees are having trouble coping with work-related stress, they are encouraged to talk with someone who can help. If they are in crisis, let them know there are options available to [help them cope](#) (see **Help Yourself**). For confidential support available 24/7, they can call 988.

The month of May is Mental Health Awareness Month and there are many ways to be proactive in addressing this in your workplace. Leaders are encouraged to take action to help with care by building a healthier work force. OSHA offers a [checklist](#) to provide recommendations for senior managers to help support mental health and alleviate stressors for workers.

Workers throughout all industries are affected and can be at risk in the workplace while dealing with distress. When embraced, employees are reassured to manage stress better, prevent burnout and preserve mental well-being. More guidance for employers can be found through [OSHA's Safe Workplace Good Headspace initiative](#).

If you need assistance in evaluating your ergonomics or safety and health program, please contact Neal Freedman, John Cotnam, Mark Hickox or Colin Trombley from Atlantic Charter's Safety and Health Department at (617) 488-6500.