The Lockout/Tagout Standard Explained

SETON

1.877.899.5928 | www.seton.com

The Lockout/Tagout rule, OSHA standard § 1910.147, is one of the most relevant to a variety of businesses and individual workers across many industries. This broad-based requirement boils down to the safe operation of potentially dangerous equipment, where the hazard to employees comes from an unexpected startup and/or energization of machinery, especially during service or maintenance activities.

In other words, the Lockout/Tagout standard applies to any machinery, tool or piece of equipment that could cause harm if it unexpectedly turns on.

Why is Lockout/Tagout so important for businesses to understand?

Beyond the Lockout/Tagout standard's position as an OSHA rule that must be followed, there are many reasons why this standard in particular is so important to the vast majority of businesses. Consider:

§ 1910.147(a)(1)

Scope: The rule applies to all types of relevant equipment in the very broad general industry category, accounting for more than 90 percent of all such cases. The only exceptions coming in the agriculture, construction, electric utility and oil and gas industries.

Potential for danger: Industrial equipment is frequently designed to apply force beyond the power of the human body. When the many moving pieces of such machinery are considered, it's clear that unexpectedly activated equipment presents many dangers to employees.

389

fatalities specifically caused by improper Lockout/Tagout practices were recorded in 2015.

Prevalence of the issue: OSHA has regularly listed Lockout/Tagout deficiencies and shortcomings as one of its most common citations and cause for human injury. In 2015, 389 fatalities specifically caused by improper Lockout/Tagout practices were recorded. In 2016 alone, there were over 3,200 Lockout/Tagout citations issued, amounting to over $16.6 million in fines. Lockout/Tagout isn't only an issue of safety and well-being of workers; it's also a concern because it's so frequently cited during inspections.

Definitions

There are many aspects of the Lockout/Tagout standard that are easier to understand with simple definitions in plain English. They include:

Over 3,200 Lockout/Tagout citations were issued, amounting to over $16.6 million in fines in 2016.

Authorized employee: A worker whose duties include performing maintenance or repair on affected machinery. He or she initiates and concludes the Lockout/Tagout process.

Affected employee: An employee whose job requires him or her to use a machine in the Lockout/Tagout protocol, or works in an area near a locked out or tagged out machine undergoing maintenance.

Energy isolating device: A tool that physically stops the transmission of energy, also known as a lockout device.

Lockout: The act of placing a locking device, typically a safety padlock, onto the energy isolating device, then securely locking all components to ensure the equipment can't be used until it is removed. Lockout devices need to stand up to incidental contact and any efforts made to remove them, outside of the use of excessive force or specialized tools in flagrant disregard for regulations.

Tagout: The act of securely placing a tagout device - generally a highly visible tag - on an energy isolating device. It indicates the

machine involved can't be used until it's repaired, as well as who is authorized to perform those repairs.

Looking at critical parts of the standard

The Lockout/Tagout standard is full of information for supervisors and managers to understand and pass along to their staff.

Perhaps the most necessary functional, day-to-day element of Lockout/Tagout is the need for an energy control program. This requirement mandates that businesses establish these five pillars:

§1910.147(c)(7) **1. Develop a program** and specific procedures for physically protecting employees from dangers related to equipment energization.

§1910.147(c)(7) **2. Train workers** on the concept and application of Lockout/Tagout. Training must include proper procedure, the limitations and potential dangers faced even when Lockout/Tagout equipment is in place. Retraining over time is also required by OSHA.

§1910.147(c)(6) **3. Conduct periodic inspections** of locked out and tagged out machinery to ensure it's inoperative before any maintenance or repair work starts. These inspections must be conducted by employees not otherwise involved in Lockout/Tagout procedures.

§1910.147(c)(5) **4. Identify equipment and isolation points** by clearly identifying valves, switches, breakers and plugs using permanent, standardized labels and tags.

§1910.147(c)(5) **5. Deploying proper Lockout/Tagout devices** throughout your facility is crucial to effectively disabling machinery and equipment as required by OSHA. Use Safety padlocks and other Lockout Devices for a high degree of certainty in your compliance efforts.

Unless businesses give each of these five basic requirements equal attention, they run the risk of coming up short of total compliance.

Additional Lockout/Tagout considerations

Lockout is always a requirement, except for some devices which simply can't be locked out. In these cases, proper tagout procedure is even more important, as it's the only line of defense for workers.

§1910.147(c)(2)(i)

Consistency and visibility are vital. OSHA requires *tagout-only cases* to have the tagout device attached where a lockout device otherwise would have been. Also, businesses must demonstrate tagout-only instances provide a comparable level of safety to lockout and tagout combined. That being said, there are several great products on that market that can take on any type of irregular piece of equipment. The Adjustable Cable Lock Device is one effective option for this type of scenario.

§1910.147(b)

The limitation of Lockout/Tagout procedures solely to authorized employees is a simple yet critical point to remember. *Only authorized employees* can physically begin the Lockout/Tagout process, no exceptions. Affected employees must be notified by the authorized employee or supervisor before the process begins and after it ends.

§1910.147(d)

Energy control procedure: Specifics are vital

Each business needs to develop its own energy control procedures, as well as document them and ensure they're regularly used. This is required for each energy source or piece of machinery. A failure to have these elements in place can lead to OSHA citations. The federal regulator requires:

- **A statement of the intended use** of the procedure.
- **Specific, clear steps** for shutting down equipment and securing it.
- **An easy-to-follow procedure** for using lockout and tagout devices.
- **Requirements for testing** the effectiveness of energy control measures.

§1910.147(c)(5) and §1910.147(c)(7)

The materials used

OSHA has specific requirements for the protective materials and hardware used in Lockout/Tagout procedures and how employers provide them. They include:

- The need for employers to **make hardware available** to secure equipment from energy sources. This is one area where Lockout Stations offer some major benefits, by bundling all the hardware required that meets OSHA specifications, in one easily accessible, single location for authorized employees.
- Lockout and tagout **devices must be clearly identified** and only used for that purpose. This can be especially tricky with padlocks, so make sure to only use safety padlocks specifically made for the job. Padlocks must be identified with a label or engraving to designate which authorized employee owns them.
- Durability is key - **devices have to stand up to their environment** as well as unauthorized attempts at removal, barring the use of extreme force or outside tools. These devices meet the stringent OSHA standards.
- Standardization is important, as at least one element between color, shape and size must be the same across all lockout devices. **Tagout devices must have standardized print and format and withstand at least 50 lbs. of force without tearing.** These tags comply with OSHA standards.
- Employees who apply devices should be **identified by name or other means** on each device. See our OSHA-recommended Photo ID Tags.

Bringing everything together

There's no doubt the Lockout/Tagout standard is complicated. However, this guide provides a solid base from which safety directors, operations managers and facility managers can build their knowledge of this common - and commonly cited - OSHA standard to keep employees safe and their facility in line with OSHA expectations. Remember these takeaways as you continue your safety efforts:

- Lockout/Tagout training and regular refreshers are required for authorized and affected employees. This includes part-time or contracted workers.
- OSHA requires periodic inspections, occurring at least once each year, to assess compliance with relevant safety standards.
- Lockout/Tagout Procedures should be identified and posted on or near all energy isolation points within your facility.
- The employee performing maintenance on a given piece of equipment must place the appropriate Lockout and Tagout devices in position, remove them when finished and notify affected employees as appropriately before and after action is taken.
- OSHA has stringent standards for the durability of lockout and tagout devices, which means choosing gear that meets those requirements is critical for a program's success.

Explore OSHA recommended products and devices for any application

OSHA Standards

Padlocks	*1910.147(c)(2)* *1910.147(c)(5)*
Lockout Tags	*1910.147(c)(2)* *1910.147(c)(5)* *1910.147(c)(3)* *1910.147(c)(7)*
Lockout Hasps	*1910.147(c)(2)* *1910.147(c)(5)*
Lockout Signs	*1910.147(c)(7)*
Lockout Labels	*1910.147(c)(7)*
Lockout Devices	*1910.147(c)(2)* *1910.147(c)(5)*
Lockout Training	*1910.147(c)(1)* *1910.147(c)(4)* *1910.147(c)(7)*

Sources

blog.dol.gov/2016/10/18/top-10-osha-citations-of-2016-a-starting-point-for-workplace-safety

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