Safety Absolute Brief Facts

The Control of Hazardous Energy - Lock Out/Tag Out (LOTO)

The procedures outlined below are intended to prevent injury or death to employees by requiring certain procedures be taken before working on equipment. Each employee must be able to demonstrate & explain essential policies and procedures on the proper Lockout/Tagout process.

1. Unless it is not feasible (i.e., inspecting, troubleshooting, observing, etc.), employees shall not perform any work on equipment where there is a potential to be exposed to energized mechanical or electrical hazards until all sources of energy have been de-energized, grounded, or guarded. Equipment variations require the mechanic to know what car controls are available and operating, and what safety methods will be employed to gain control of the car. Never access the hoistway unless you have complete control of the car. All forms of potential energy including electrical, mechanical, hydraulic, pneumatic, kinetic, gravity, etc. shall be controlled to prevent inadvertent movement of a unit or piece of equipment being worked on.

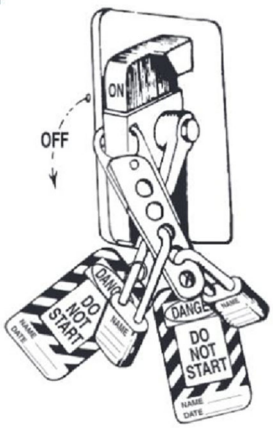
2. Take the time to do a verbal, mental, or written Job Hazard Analysis to determine if the power is needed to perform the task and ensure that the appropriate PPE is available and worn for the work being done. If troubleshooting, testing, or diagnostic work must be performed with the power “on”, refer to your company’s live electrical safe work practices policy.

3. Deactivate the mainline disconnect switch to shut off the power.

CAUTION: Do not stand directly in front of the mainline disconnect when operating (stand off to the side of the disconnect and exhale while operating the disconnect switch so no chemicals can be ingested**).**

Each employee shall apply a personal lock and a "Do Not Start" tag to the disconnect switch. The “Do Not Start” tag shall include the employee's name and telephone number. If controls are so located that only one lock can be accommodated, a multiple lockout device shall be used (see the figure).

Figure 7a



4. Once the system has been locked out, verify with the appropriate test equipment that the system has been electrically de-energized. Some components (capacitors, MG sets, etc.) often store residual electrical energy, even though power is shut off.

5. Before working on mechanical systems, make sure the system is understood. If there are any questions, get answers before proceeding. Some systems store mechanical energy, even though the electrical power is shut off. The stored mechanical energy can result in violent movement of a machine part, such as a plunger or piston rod. The sticking of a gasket can hold the parts together while bolts are removed, and then can come apart violently due to stored pressure. When working on the elevator hydraulic system, mechanical controls shall be established by mechanically blocking or controlling the mechanical stored energy (i.e., landing on rated pipe stands, rail blocks, etc.).

6. Restoring Equipment and Machines to Normal Service.
   All tools shall be removed, all guards and covers shall be reinstalled, and the area shall be checked to ensure that no personnel are exposed to the equipment or machine. The mechanic, after checking to make sure that no one is exposed to the equipment or machine, shall restore energy after everyone who placed the lockout mechanism removes it.

Summary

The intent of this Standard Work Process and Procedure is to make sure that all mechanics and apprentices fully understand how to properly Lock Out/Tag Out. When conventional means cannot be used in accordance with this SWP or in accordance with the Elevator Industry Field Employee Safety handbook (EIFESHB), and you must deviate from these practice(s) E.g. Live work, a written JHA shall be approved by your manager/supervisor before proceeding.

Through the Alliance between OSHA's 10 Regional Offices and the Elevator Contractors of America (ECA), Elevator Industry Work Preservation Fund (EIWPF), International Union of Elevator Constructors (IUEC), National Association of Elevator Contractors (NAEC), National Elevator Industry Educational Program (NEIEP), and National Elevator Industry Inc. (NEII), collectively known as The Elevator Industry Safety Partners, developed this Industry Specific Training for informational purposes only. It does not necessarily reflect the official views of OSHA or the U.S. Department of Labor. March 2025

Under the Occupational Safety and Health Act, employers are responsible (http://www.osha.gov/as/opa/worker/employer-responsibility.html) for providing a safe and healthy workplace and workers have rights (https://www.osha.gov/workers). OSHA can help answer questions or concerns from employers and workers. OSHA's On-Site Consultation Program (https://www.osha.gov/consultation) offers free and confidential advice to small and medium-sized businesses, with priority given to high-hazard worksites. For more information, contact your regional or area OSHA office (https://www.osha.gov/contactus/bystate), call 1-800-321-OSHA (6742), or visit https://www.osha.gov/.