

## 1910.147 The control of hazardous energy (lockout/tagout)

- (a)(3)(ii); (a)(4)(i); (c)  
(6)(i)(D); (a)(7) and (8);  
(e)(3); and (f)(2)(i)
- (a) Scope, application, and purpose**

**(3) Purpose.**

- (ii) When other standards in this part require the use of lockout or tagout, they shall be used and supplemented by the procedural and training requirements of this section.

**(c) General**

**(4) Energy control procedure.**

- (i) Procedures shall be developed, documented and utilized for the control of potentially hazardous energy when employees are engaged in the activities covered by this section.

**Note:** Exception: The employer need not document the required procedure for a particular machine or equipment, when all of the following elements exist: (1) The machine or equipment has no potential for stored or residual energy or reaccumulation of stored energy after shut down which could endanger employees; (2) the machine or equipment has a single energy source which can be readily identified and isolated; (3) the isolation and locking out of that energy source will completely deenergize and deactivate the machine or equipment; (4) the machine or equipment is isolated from that energy source and locked out during servicing or maintenance; (5) a single lockout device will achieve a locked-out condition; (6) the lockout device is under the exclusive control of the authorized

employee performing the servicing or maintenance; (7) the servicing or maintenance does not create hazards for other employees; and (8) the employer, in utilizing this exception, has had no accidents involving the unexpected activation or reenergization of the machine or equipment during servicing or maintenance.

(6) *Periodic Inspection.*

(i) 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.

(D) Where tagout is used for energy control, the periodic inspection shall include a review, between the inspector and each authorized and affected employee, of that employee's responsibilities under the energy control procedure being inspected, and the elements set forth in paragraph (c)(7)(ii) of this section.

(7) *Training and communication.*

(i) The employer shall provide training to ensure that the purpose and function of the energy control program are understood by employees and that the knowledge and skills required for the safe application, usage, and removal of energy controls are acquired by employees. The training shall include the following:

(A) 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.

(B) Each affected employee shall be instructed in the purpose and use of the energy control procedure.

(C) 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.

(ii) When tagout systems are used, employees shall also be trained in the following limitations of tags:

- (A) Tags are essentially warning devices affixed to energy isolating devices, and do not provide the physical restraint on those devices that is provided by a lock.
  - (B) When a tag is attached to an energy isolating means, it is not to be removed without authorization of the authorized person for it, and it is never to be bypassed, ignored, or otherwise defeated.
  - (C) Tags must be legible and understandable by all authorized employees, affected employees, and all other employees whose work operations are or may be in the area, in order to be effective.
  - (D) Tags and their means of attachment must be made of materials which will withstand the environmental conditions encountered in the workplace.
  - (E) Tags may evoke a false sense of security, and their meaning needs to be understood as part of the overall energy control program.
  - (F) Tags must be securely attached to energy isolating devices so that they cannot be inadvertently or accidentally detached during use.
- (iii) Employee retraining
- (A) Retraining shall be provided for all authorized and affected employees whenever there is a change in their job assignments, a change in machines, equipment or processes that present a new hazard, or when there is a change in the energy control procedures.
  - (B) Additional retraining shall also be conducted whenever a periodic inspection under paragraph (c) (6) of this section reveals, or whenever the employer has reason to believe, that there are deviations from or inadequacies in the knowledge or use of the energy control procedures.
  - (C) The retraining shall reestablish employee proficiency and introduce new or revised control methods and procedures, as necessary.
- (iv) The employer shall certify that employee training has been accomplished and is being kept up to date. The certification shall contain each employee's name and dates of training.

- (8) *Energy isolation.* Lockout or tagout shall be performed only by the authorized employees who are performing the servicing or maintenance.

**(e) Release from lockout or tagout**

- (3) *Lockout or tagout devices removal.* Each lockout or tagout device shall be removed from each energy isolating device by the employee who applied the device. *Exception to paragraph (e) (3):* When the authorized employee who applied the lockout or tagout device is not available to remove it, that device may be removed under the direction of the employer, provided that specific procedures and training for such removal have been developed, documented and incorporated into the employer's energy control program. The employer shall demonstrate that the specific procedure provides equivalent safety to the removal of the device by the authorized employee who applied it.

**(f) Additional requirements**

- (2) *Outside Personnel (contractors, etc.)*
- (i) Whenever outside servicing personnel are to be engaged in activities covered by the scope and application of this standard, the on-site employer and the outside employer shall inform each other of their respective lockout or tagout procedures.
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