

**STANDARDS PRESENTATION
TO
CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD**

PROPOSED STATE STANDARD,
TITLE 8, CHAPTER 4

Amend Section 3314 as follows:

§3314. The Control of Hazardous Energy for the Cleaning, Repairing, Servicing, Setting-Up, and Adjusting Operations of Prime Movers, Machinery and Equipment, Including Lockout/Tagout.

(a) Application.

(1) This Section applies to the cleaning, repairing, servicing, setting-up and adjusting of machines and equipment in which the unexpected energization or start up of the machines or equipment, or release of stored energy could cause injury to employees.

(2) For the purposes of this Section, cleaning, repairing, servicing and adjusting activities shall include unjamming prime movers, machinery and equipment.

NOTE: Requirements for working on energized electrical systems are prescribed in Sections 2320.1 through 2320.9 or 2940 through 2945.

(b) Definitions:

Locked out. The use of devices, positive methods and procedures, which will result in the effective isolation or securing of prime movers, machinery and equipment from mechanical, hydraulic, pneumatic, chemical, electrical, thermal or other hazardous energy sources.

Normal Production Operations. The utilization of a machine or equipment to perform its intended production function.

Prime Mover. The source of mechanical power for a machine.

(c) Cleaning, Servicing and Adjusting Operations.

Machinery or equipment capable of movement shall be stopped and the power source de-energized or disengaged, and, if necessary, the moveable parts shall be mechanically blocked or locked out to prevent inadvertent movement, or release of stored energy during cleaning, servicing ~~or~~ and adjusting operations ~~unless~~. Accident prevention signs or tags or both shall be placed on the controls of the power source of the machinery or equipment.

(1) If the machinery or equipment must be capable of movement during this period in order to perform the specific task—~~If so~~, the employer shall minimize the hazard ~~of movement~~ by providing and requiring the use of extension tools (e.g., extended swabs, brushes, scrapers) or other methods or means, including but not limited to interlocks, to protect employees from injury due to such movement. Employees shall be made familiar with the safe use and maintenance of such tools, methods or means, by thorough training. ~~For the purpose of Section 3314, cleaning, repairing, servicing and adjusting activities shall include unjamming prime movers, machinery and equipment.~~

(d) Repair Work and Setting-Up Operations.

Prime movers, equipment, or power-driven machines equipped with lockable controls or readily adaptable to lockable controls shall be locked out or positively sealed in the “off” position during repair work and setting-up operations. Machines, equipment, or prime movers not equipped with lockable controls or readily adaptable to lockable controls shall be considered in compliance with Section 3314 when positive means are taken, such as de-energizing or

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disconnecting the equipment from its source of power, or other action which will effectively prevent the equipment, prime mover or machine from inadvertent movement or release of stored energy. In all cases, accident prevention signs ~~and/or~~ tags or both shall be placed on the controls of the equipment, machines and prime movers during repair work and setting-up operations.

EXCEPTIONS to subsections (c) and (d):

1. Minor tool changes and adjustments, and other minor servicing activities, which take place during normal production operations are not covered by the requirements of Section 3314 if they are routine, repetitive, and integral to the use of the equipment or machinery for production, provided that the work is performed using alternative measures which provide effective protection.
2. Work on cord and plug-connected electric equipment for which exposure to the hazards of unexpected energization or start up of the equipment is controlled by the unplugging of the equipment from the energy source and by the plug being under the exclusive control of the employee performing the work.

~~NOTE: For the purpose of Section 3314, "locked-out" means the use of devices, positive methods and procedures, which will result in the effective isolation or securing of prime movers, machinery and equipment from mechanical, hydraulic, pneumatic, chemical, electrical, thermal or other energy sources.~~

~~(e)~~(e) Materials and Hardware. The employer shall provide ~~a sufficient number of~~ accident prevention signs, ~~or~~ tags, ~~and~~ padlocks, seals or other similarly effective means which may be required by any ~~reasonably foreseeable~~ repair ~~emergency~~. Signs, tags, padlocks, and seals shall have means by which they can be readily secured to the controls. Tagout device attachment means shall be of a non-reusable type, attachable by hand, self-locking and non-releasable with a minimum unlocking strength of no less than 50 pounds.

~~(d) During repair, prime movers, machines or equipment shall be effectively blocked or otherwise secured to prevent inadvertent movement if such movement can cause injury to employees.~~

~~(e)~~(f) Repetitive Process Machines. On repetitive process machines, such as numerical control machines, which require power or current continuance to maintain indexing and where repair, adjustment, testing, or setting-up operations cannot be accomplished with the prime mover or hazardous energy source disconnected, such operations may be performed under the following conditions:

- (1) The operating station where the machine may be activated must at all times be under the control of a qualified operator or craftsman.
- (2) All participants must be in clear view of the operator or in positive communication with each other.
- (3) All participants must be beyond the reach of machine elements which may move rapidly and present a hazard to them.

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(4) Where machine configuration or size requires that the operator leave his control station to install tools, and where machine elements exist which may move rapidly, if activated, ~~exist~~ such elements must be separately locked out by positive means.

(5) During repair procedures where mechanical components are being adjusted or replaced, the machine shall be de-energized or disconnected from its power source.

NOTE: "Participant" shall mean any other person(s) engaged in the repair, adjustment, testing or setting up operation in addition to the qualified operator or craftsman having control of the machine operating station.

~~(f)~~(g) Hazardous Energy Control Procedures. An hazardous energy control procedure shall be developed and utilized by the employer when employees are engaged in the cleaning, repairing, servicing, setting-up or adjusting of prime movers, machinery and equipment.

(1) The procedure shall clearly and specifically outline the scope, purpose, authorization, rules, and techniques to be utilized for the control of hazardous energy, and the means to enforce compliance, including, but not limited to, the following:

~~(1)~~(A) A statement of the intended use of the procedure;

~~(2)~~(B) The procedural steps for shutting down, isolating, blocking and securing machines or equipment to control hazardous energy;

~~(3)~~(C) The procedural steps for the placement, removal and transfer of lockout devices and ~~or~~ tagout devices and ~~the responsibilities for them~~; and,

~~(4)~~(D) The requirements for testing a machine or equipment, to determine and verify the effectiveness of lockout devices, tagout devices and other hazardous energy control devices.

(2) The employer's hazardous energy control procedures shall be documented in writing.

EXCEPTION to subsection (g)(2): 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 re-accumulation 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 de-energize and deactivate the machine or equipment;

4. The machine or equipment is isolated from that energy source and locked out during cleaning, repairing, servicing, setting-up, and adjusting operations;

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 cleaning, repairing, servicing, setting-up, and adjusting operations;

7. The cleaning, repairing, servicing, setting-up, and adjusting operations do not create hazards for other employees; and

8. The employer, in utilizing this exception, has had no accidents involving the unexpected activation or re-energization of the machine or equipment during cleaning, repairing, servicing, setting-up, and adjusting operations.

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(A) The employer's hazardous energy control procedure shall include separate instructions for the safe lockout/tagout of each machine or piece of equipment affected by the hazardous energy control procedure.

EXCEPTION to subsection (g)(2)(A): The instructions for the safe lockout/tagout of prime movers, machinery or equipment may be used for a group or type of machinery or equipment, when all of the following elements exist:

- (1) The operational controls named in the instructions are configured in a similar manner, and
- (2) The locations of disconnect points (energy isolating devices) are identified, and
- (3) The sequence of steps to safely lockout or tagout the machinery or equipment are similar.

(B) The instructions for the safe lockout/tagout of each machine, or piece of equipment shall be readily available and understandable to all affected employees.

(h) Periodic inspection.

The employer shall conduct a periodic inspection of the hazardous energy control procedure at least annually to ensure that the procedure and the requirements of this section are being followed.

(1) The periodic inspection shall be performed by ~~an authorized employee~~ a qualified person other than the one(s) utilizing the hazardous energy control procedures being inspected.

(2) Where lockout and/or tagout is used for hazardous energy control, the periodic inspection shall include a review between the inspector and each authorized employee, of that employee's responsibilities under the hazardous energy control procedure being inspected.

(3) The employer shall certify that the periodic inspections have been performed. The certification shall identify the machine or equipment on which the hazardous energy control procedure was being utilized, the date of the inspection, the employees included in the inspection, and the person performing the inspection.

(i) Whenever outside servicing personnel are to be engaged in activities covered by this section, the on-site employer's lockout or tagout procedures shall be followed.

(j) Training.

(1) Affected employees shall be trained on the hazardous energy control procedures and on the hazards related to performing any activity required for cleaning, repairing, servicing, setting-up and adjusting prime movers, machinery and equipment.

(2) Such training shall be documented and kept in the employee's training records as required by Section 3203.

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.