

CONTROL OF HAZARDOUS ENERGY

The Control of Hazardous Energy (Lockout/Tagout) Standard went into effect on January 2, 1990. It is presently one of the most frequently cited standards by OSHA for violations. The purpose of the standard is to help safeguard employees from hazardous energy while they are performing servicing or maintenance on machines and equipment. The standard is not meant to cover cord and plug connected equipment nor during hot tap operations when continuity of service is essential. It is recommended that you visit OSHA's web-page at www.osha.gov/SLTC/controlhazardousenergy/index.html for additional resources on recognition, compliance and training.

Key Lockout-Tagout Provisions¹

Training: Each worker involved and affected by these processes shall be trained initially and periodically. Employer shall certify that training has been accomplished and updated. (Certification must contain each employee's name and dates of training).

Program: The employer shall establish a program in writing and utilize procedures for affixing appropriate lockout or tagout devices, and to otherwise disable machinery or equipment. (Written procedures for each piece of equipment are necessary unless the following exception applies).

Substantial: Lockout/Tagout devices shall be substantial enough to prevent removal without the use of excessive force, tools, or accidental removal.

Identifiable: Lockout/Tagout devices shall be identifiable to the employee applying the devices and warn against the hazardous conditions if the machine or equipment is energized.

Periodic Inspection: The employer shall conduct periodic inspections of the energy control procedure at least annually, by authorized employees other than the ones utilizing the procedure being inspected, to ensure that the procedure and the requirements of this standard are being followed. The periodic inspection shall be designed to correct any deviation or inadequacies observed.

Energy Isolation: Energy isolation shall be performed only by authorized employees.

Notification: Affected employees shall be notified by the employer or authorized employees of the application and removal of lockout/Tagout devices.

Application of Control: The established procedure for the application of energy control shall cover the sequence for machine or equipment shutdown, isolation, and manner in which the lockout/Tagout device is affixed or used, and verification of isolation.

¹Source: New York Dept. of Labor

EXCEPTION TO NEEDING DOCUMENTED PROCEDURES FOR PARTICULAR EQUIPMENT (29 CFR 1910.47(c)(4)(I))

The employer does not need to document the required procedure for a particular machine or equipment when **ALL** of the following elements exist:

- The machine or equipment has no potential for stored or residual energy or reaccumulation of stored energy after shut down which could endanger employees.
- The machine or equipment has a single energy source which can be readily identified and isolated.
- The isolation and locking out of that energy source will completely deenergize and deactivate the machine or equipment.
- The machine or equipment is isolated from that energy source and locked out during servicing or maintenance.
- A single lockout device will achieve a locked out condition.
- The lockout device is under the exclusive control of the authorized employee performing the servicing or maintenance.
- The servicing or maintenance does not create hazards for other employees.
- 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.

If more information or a video on this Standard is needed, please call the Composites One's Department of Health, Safety & Environment at 800/621-8003.

ELECTRICAL SAFETY TRAINING

OSHA issued a new standard in 1991 on electrical safety-related work practices for general industry. Training requirements were promulgated in this revision so that electrical shock and other hazards associated with electricity can be avoided.

The amount of training to be given depends on the degree of exposure to the employee. Employees are classified as qualified, meaning those permitted to work on or near exposed energized parts and unqualified, those workers with little or no training who may be exposed to parts of electric circuits operating at 50 volts or more to ground.

Training for unqualified employees may be given in a classroom or through on-the job training. The following should be covered:

Selection and use of work practices: Safety-related work practices must be employed to prevent electric shock or other injuries when work is performed on equipment or circuits which may become energized.

- Lockout/Tagout procedures should be explained for de-energizing parts
- only qualified persons may work on energized parts

Use of portable electrical equipment: Unqualified workers should be trained in the use of cord- and plug- connected equipment.

- equipment must be handled in a manner which will not cause damage
- equipment must be visually inspected before use for external defects and for evidence of possible internal damage
- flexible cords used with grounding-type equipment must contain a grounding conductor
- equipment used in conductive work locations must be approved for those locations
- employees hands may not be wet when plugging and unplugging cords if energized parts are involved

Electrical power and lighting circuits:

- Load-rated switches, circuit breakers or other devices designed as disconnecting means must be used for opening, reversing or closing of circuits under load conditions
- After a circuit is deenergized by a circuit protective device, the circuit may not be manually reenergized until it has been determined that the equipment and circuit can be safely energized
- Overcurrent protection of circuits and conductors may not be modified

Test instruments and equipment: Only qualified persons may perform testing work on electric circuits or equipment.

Safeguards for personnel protection:

- employees working in areas where there are potential electrical hazards shall use electrical protective equipment
- each employee must use insulated tools or handling equipment if the tools or handling equipment might make contact with conductors or parts
- alerting techniques such as safety signs and tags and barricades must be used to warn and protect employees from electrical hazards

Please call Composites One's Department of Health, Safety & Environment at 800/621-8003 for a training video and complete copy of this standard.