



Control of Hazardous Energy Program

OSHA (lockout/ Tagout) standard 29 CFR 1910.147

Scope

The Control of Hazardous Energy Program outlines the purpose, rules, and techniques to be used by Nashville State Community College personnel to safe guard against the unexpected energizing, start-up, or release of stored energy which could cause injury. It shall be the responsibility of each employee to become familiar with the contents of this program and ensure compliance. Heads of departments shall ensure that employees under their supervision receive training in the contents of this program and ensure records of this training are maintained.

Purpose

The purpose of this program is to establish procedures for correctly adapting appropriate lockout/ tagout devices to energy isolating devices to prevent unexpected energization, start-up or release of stored energy in order to prevent injury and safe guard personnel.

Authorizations

A designated Nashville State Community College representative may authorize the use of this program by any and all facilities, departments and individuals associated with the control of hazardous energy on any Nashville State Community College entity.

Heads of departments will implement the program and ensure that the personnel under their supervision are trained in accordance with the procedures established herein. This responsibility may be delegated to another person or persons within the department providing it is done so in writing and the designated person is qualified and competent. This person or persons will authorize employees to implement the lockout/ tagout standard.

An employee who has been authorized by his or her department head shall implement a lockout/tagout procedure on machines or equipment to perform servicing or maintenance where the unexpected energization or start-up of the machine or equipment, or release of stored energy could cause injury.

Rules

Each department utilizing the Nashville State Community College Control of Hazardous Energy Program shall establish and document site-specific procedures for energy isolation. Specialized lockout devices shall be obtained and kept within the department for its use.

If an energy device is capable of being locked out, the authorized employee shall utilize lockout, unless the department head or their designated representative can demonstrate that utilization of a tagout system will provide full employee protection.

When a tagout device is used on an energy device which is capable of being locked out, the tagout device shall be attached at the same location that the lockout device would have been attached.

These devices shall be used for no other purpose than lockout, and shall be substantial enough to prevent removal without the use of excessive force or unusual techniques. Tagout devices, including their means of attachment, shall be substantial enough to prevent inadvertent or accidental removal.

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 and having the general design and basic characteristics of being at least equivalent to a one-piece and all-environment-tolerant.

The Environmental Health & Safety manager or his/her designated representative shall conduct periodic inspection of the Control of Hazardous Energy Program at least annually to ensure that the procedure and the requirements of 29CFR1910.147(c)(6) are being followed.

Training

The heads of departments or their authorized personnel are required to provide training to ensure that the purpose and function of the Control of Hazardous Energy Program are understood by employees.

Through training, employees will be required to possess the knowledge and skills required for safe application, usage, and removal of energy controls. Training shall include the following:

1. Each authorized employee shall receive training in the recognition of 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.
2. Each affected employee shall be instructed in the purpose and use of the energy control procedure.
3. 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 re-energize machines or equipment which are locked-out or tagged-out.

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

1. Tags are warning devices secured to energy-isolating devices, and do not provide the physical restraint on those devices that is provided by a lockout system.
2. When a tag is secured, it is not to be removed without authorization of the authorized person responsible for it, and it is never to be bypassed, ignored or otherwise defeated.
3. 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.
4. Tags and their means of attachment must be made of materials which will withstand the environmental conditions encountered in the workplace.
5. Tags may evoke a false sense of security, and their meaning needs to be understood as part of the overall energy control program.
6. Tags must be securely attached to energy- isolating devices so that they cannot be inadvertently or accidentally detached during use.

Retraining shall be provided for all authorized and affected employees whenever there is a change in their job assignments, a change in machines, equipment that presents a new hazard, or when there is a change in energy control procedures. Retraining shall establish employee proficiency and introduce new or revised control methods and procedures as necessary. The heads of departments or their designated representatives 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.

Techniques

Implementation of the lockout or tagout system shall be performed only by authorized employees.

Affected employees shall be notified by heads of departments, or designated representatives, of the application and removal of lockout or tagout devices. Notification shall be given before the controls are applied, and after they are removed from the machine or equipment.

The established procedure for the application of energy control shall cover the following actions and shall be done in the following sequence:

1. Before an authorized or affected employee turns off a machine or piece of equipment, they shall have knowledge of the type and magnitude of the energy, the hazards of the energy to be controlled, and the method or means to control the energy.
2. All energy- isolating devices that are needed to control the energy to the machine or equipment shall be physically located and operated in such a manner as to isolate the machine or equipment from the energy source(s).
3. Lockout or tagout devices shall be secured to each energy-isolating device by authorized employees. Lockout devices, where used, shall be secured in a manner that will hold the energy in an "off" position. Tagout devices, where used, shall be secured and clearly indicate that the operation or movement of energy- isolating devices from "off" position is prohibited.

Where tagout devices are used with energy- isolating devices designed with the capability of being locked, the tag shall be fastened at the same point at which the lock would have been secured.

Where a tag cannot be secured directly to the energy-isolating device, the tag shall be located as close as safely possible to the device, in a position that will be immediately obvious to anyone attempting to operate the device.

4. Following the application of lockout or tagout devices to energy-isolating devices, all potentially hazardous stored energy shall be rendered safe. If there is a possibility of re-accumulation of stored energy to a hazardous level, verification of isolation shall be continued until the servicing or maintenance is completed.
5. Prior to starting work on machines or equipment that have been locked out or tagged out, the authorized employee shall verify that isolation and de- energization of the machine or equipment has been accomplished.
6. Before lockout or tagout devices are removed and energy is restored to the machine or equipment, procedures shall be followed and actions taken by the authorized employee(s) to ensure the following:

- a. *The Machine or Equipment work area shall be inspected to ensure that nonessential items have been removed and that machine or equipment components are operationally intact.*

b. The employees work area shall be checked to ensure that all employees have been safely positioned or removed. Before lockout or tagout devices are removed and before machines or equipment are energized, affected employees shall be notified.

7. Each lockout or tagout device shall be removed by the employee who applied the device. However, if the employee who applied the device shift has changed or is not at the facility to remove the lockout or tagout device then, the authorized personnel may remove the lockout or tagout device.

8. In situations where lockout or tagout devices must be temporarily removed from the energy- isolating device and the machine or equipment energized to test the equipment the following actions shall be followed:

- a. Clear the machine or equipment of tools and materials.*
- b. Remove employees from the machine or equipment area.*
- c. Remove the lockout or tagout devices.*
- d. Energize and proceed with testing or positioning.*
- e. De-energize all systems and reapply energy control measures to continue the servicing and/or maintenance.*

9. Whenever outside servicing personnel are to be engaged in activities covered by the scope and application of this program, the designated Nashville State Community College authorized personnel and the outside employer shall inform each other of their respective lockout or tagout procedures. The authorized personnel shall ensure that his/her personnel understand and comply with restrictions and prohibitions of the outside employer's energy control procedures. If the outside employer has no documented lockout or tagout procedures, they shall ensure that their personnel understand and comply with the procedures established in this program.

10. When servicing and/or maintenance are performed by a crew or department, they shall utilize a procedure that implements their employees a level of protection equivalent to that provided by the implementation of a personal lockout or tagout device. This shall be accomplished by:

- a. The application of a multi-lock accepting device by the primary authorized employee to the energy- isolating device.*
- b. The primary authorized employee attaching his/her lock to the multi-accepting device.*
- c. Each authorized employee shall secure a personal lockout or tagout device to the multi-lock accepting device when they begin work, and shall remove those devices when they stop working on the machine or equipment being serviced or maintained.*
- d. The primary authorized employee removing his/her lock and the multi-lock accepting device when all service or maintenance has been completed.*

11. To insure the orderly transfer of lockout or tagout devices between off-going and on-coming employees and minimize exposure to hazards from unexpected energization, start-up of the machine or equipment, or release of stored energy, these procedures shall be followed:

- a. The on-coming personnel shall notify the off-going personnel that they are ready to begin work on the machine or equipment.*
- b. All lockout and/or tagout devices attached to the machine or equipment by the off-going personnel shall be removed and immediately replaced with like devices by the on-coming authorized personnel.*

c. *The primary authorized employee shall insure that all pertinent co-ordination between off-going and on-coming personnel has been completed before the on-coming authorized personnel begin work on the machine or equipment and that all necessary energy has been rendered safe.*