

Palm Beach State College

Florida's First Public Community College



**ENERGY CONTROL PROGRAM
(LOCKOUT/TAGOUT)**

PALM BEACH STATE COLLEGE ENERGY CONTROL PROGRAM (LOCKOUT/TAGOUT)

1. PURPOSE

To establish a means of positive control to prevent the accidental starting or energization of machinery or systems, or the release of stored energy, that could cause injury to employees while repairs, cleaning or service are being performed.

- A. To establish a safe and positive means of shutting down machinery, equipment and systems.
- B. To prohibit unauthorized personnel or remote control systems from starting machinery or equipment while it is being serviced (lockout).
- C. To provide a secondary control system (tagout) when it is impossible to positively lock out the machinery or equipment.
- D. To establish responsibility for implementing and controlling lockout/tagout procedures.
- E. To ensure that only approved locks, standardized tags and fastening devices provided by the college will be utilized in the lockout/tagout procedures.

2. DEFINITIONS

Affected employee – An employee whose job requires him/her to operate or use a machine or equipment on which servicing or maintenance is being performed under lockout or tagout, or whose job requires him/her to work in an area in which such servicing or maintenance is being performed.

Authorized employee – A person who locks out or tags out machines or equipment in order to perform servicing or maintenance on that machine or equipment. An affected employee becomes an authorized employee when that employee's duties include performing servicing or maintenance covered under this section.

3. RESPONSIBILITIES

- A. The Safety & Risk Manager will be responsible for implementing the lockout/tagout program.
- B. District Supervisors and Facilities Managers will be responsible for enforcing the program and ensuring compliance with the procedures in their respective departments.
- C. District Supervisor sand Facilities Managers will be responsible for monitoring compliance with this procedure and will conduct the periodic inspection of authorized employees.
- D. Authorized employees (those identified by District Supervisors and Facilities Managers) are responsible for following the established lockout/tagout procedures.

4. PROCEDURES

Locks, Tags and Fastening Devices

Only those locks, standardized tags and fastening devices approved and provided by the college will be utilized in the lockout/tagout procedures.

Preparation for Lockout or Tagout

Employees who are authorized to utilize lockout/tagout procedures must be knowledgeable of the different energy sources and the proper sequence for shutting off or disconnecting energy means.

The four types of energy sources are:

- (1) Electrical (most common form)
- (2) Hydraulic or pneumatic
- (3) Fluids and gases
- (4) Mechanical

More than one energy source can be utilized on some equipment and the **PROPER** procedure must be followed in order to identify energy sources and lock out/tag out accordingly.

A. Electrical

Shut off power at machine and disconnect.

- (1) Disconnecting means must be locked, and/or tagged, or physically disconnected from power source.
- (2) Press the start button to see that correct systems are locked out.
- (3) All controls must be returned to their safest position.
- (4) Points to remember:
 - If a machine or piece of equipment contains capacitors, they must be drained of stored energy.
 - Possible disconnecting means include the power cord, power panels (look for primary and secondary voltage), breakers, the operators station, motor circuit, relays, limit switches and electrical interlocks.

Note: Some equipment may have a motor isolating shut-off and a control isolating shutoff. If the electrical energy is disconnected by simply unplugging the power cord, the cord must be kept under the control of the authorized employee or the plug end of the cord must be locked out or tagged out.

B. Hydraulic/Pneumatic

- (1) Shut off all energy sources (pumps and compressors). If the pumps and compressors supply energy to more than one piece of equipment, lock out or tag out the valve supplying energy to this piece of equipment.
- (2) Stored pressure from hydraulic/pneumatic lines shall be drained/bled when release of stored energy could cause injury to employees.
- (3) Make sure controls are returned to their safest position (off, stop, standby, inch, jog, etc.).

C. Fluids and Gases

- (1) Close valves to prevent flow and lock out/tag out.
- (2) Determine the isolating device, close and lock out or tag out.
- (3) Drain and bleed lines to zero energy state.

Note: Some systems may have electrically controlled valves; if so; they must be shut off, locked or tagged out. Some systems have replenishment devices, i.e., air compressors; they need to be shut off.

- (4) Check for zero energy state at the equipment.

D. Mechanical Energy (Gravity activation or stored in springs, etc)

- (1) Block out or use die ram safety chain.
- (2) Apply lockout or tagout safety device.
- (3) Shut off, lock out or tag out electrical system.
- (4) Check for zero energy state.
- (5) Return controls to safest position.

Release from Lockout/Tagout

- (1) Inspection – Make certain the work is completed and inventory tools and equipment that were used.
- (2) Clean up – Remove all towels, rags, work-aids, etc.
- (3) Replace guards – Sometimes a particular guard may have to be left off until the start sequence is completed due to possible adjustments. However, all other guards should be put back into place. After final check out, all guards should be in place.
- (4) Check controls – All controls should be in their safest position.
- (5) The work area shall be checked to ensure that all employees have been safely positioned or removed and notified that the lockout/tagout devices are being removed.
- (6) Remove locks/tags – remove only your lock or tag.

Procedure Involving More than One Person

When servicing and/or maintenance are performed by more than one person, each authorized employee shall place his own lock or tag on the energy isolating source. This shall be done by utilizing a multiple lock scissors clamp if the equipment is capable of being locked out. If the equipment cannot be locked out, then each authorized employee must place his tag on the equipment.

Procedure for Removal of an Authorized Employee's Lockout/Tagout by the College

- (1) The supervisor will verify that the authorized employee who applied the device is not in the facility.
- (2) The supervisor will make reasonable efforts to advise the employee that his device has been removed. (This can be done when he/she returns to the facility).
- (3) The supervisor will ensure that the authorized employee has this knowledge before he resumes work at the facility.

Procedures for Outside Personnel/Contractors

Outside personnel/contractors shall be advised that the college has and enforces the use of lockout/tagout procedures. They will be informed of the use of locks and tags and notified about the prohibition relating to attempts to restart or re-energize machines or equipment that are locked out or tagged out.

5. TRAINING AND COMMUNICATION

Each authorized employee will be trained in the recognition of applicable hazardous energy sources, type and magnitude of energy available in the work place and the methods and means necessary for energy isolation and control. This training will be documented as shown in Attachment A, and the documentation will be retained in the Safety & Risk Management department. Each affected employee will be instructed in the purpose and use of the energy control procedure. 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. 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. Additional retraining of authorized employees shall also be conducted whenever a periodic inspection indicates an inadequate understanding or practice of the energy control procedure.

6. PERIODIC INSPECTIONS

A periodic inspection (at least annually) will be conducted of each authorized employee under the lockout/tagout procedure. This inspection shall be performed by a District Supervisor or Facilities Manager.

The inspection will include a review between the inspector and each authorized employee of that employee's responsibilities under the energy control (lockout/tagout) procedure. The inspection will also consist of a physical inspection of the authorized employee while performing work under the procedures.

The District Supervisor or Facilities Manager will certify in writing that the inspection has been performed. The written certification, Attachment B, shall be retained in the individual's personnel file, as appropriate, and/or a copy sent to the Safety & Risk Management department.

7. REFERENCES

Title 29, Code of Federal Regulations, Section 1910.147, "The control of hazardous energy (lockout/tagout)"

ATTACHMENT A

**AUTHORIZED EMPLOYEE
CERTIFICATION OF TRAINING**

I certify that I received training as an authorized employee under the Palm Beach State College Lockout/Tagout Program. I further certify that I understand the procedures and will abide by those procedures.

Authorized Employee Signature

Date of Training

ATTACHMENT B

LOCKOUT/TAGOUT

PERIODIC INSPECTION CERTIFICATION

I certify that _____, an authorized employee of Palm Beach State College, was inspected on the date shown below utilizing lockout/tagout procedures. The inspection was performed while working on:

Name of Equipment

Authorized Employee Signature

Date

Inspector Signature

Date