

**TO: ALL COUNTY PERSONNEL**

**FROM: VERDENIA C. BAKER  
COUNTY ADMINISTRATOR**

**PREPARED BY: RISK MANAGEMENT**

**SUBJECT: LOCKOUT/TAGOUT POLICY**

**PPM#: CW-O-070**

---

---

**ISSUE DATE**  
**June 22, 2022**

---

---

**EFFECTIVE DATE**  
**June 22, 2022**

---

---

**PURPOSE:**

This program has been established to prevent injuries to employees from moving parts, electrical shock, and pressure released by locking out and tagging the controls to the energy system, which control the equipment or operation being serviced and to provide a safe and healthful workplace for Palm Beach County Employees.

**UPDATES:**

Future updates to this PPM are the responsibility of the Manager of Employee Safety/Loss Control (ES/LC), under the direction of the Director of Risk Management.

**AUTHORITY:**

- Florida Workers' Compensation Law, Chapter 440, Florida Statutes
- Palm Beach County PPM CW- O-005, Safety Policy
- Occupational Safety and Health Administration (OSHA), 29 C.F.R. 1910.147, Control of Hazardous Energy (Lockout/Tagout), and 1910.119, 1910.146, 1910.218, 1910.261, 1910.263, 1910.269, 1910.306, and 1910.333.
- American National Standards Institute/American Society of Safety Professionals Z244.1 standard, Lockout, Tagout and Alternative Methods.

**DEFINITIONS:** See Attachment 1

**POLICY:**

Palm Beach County considers safety a necessary and integral part of its business. Every job must be done safely. This policy is implemented because the control of hazardous energy is a part of County operations, and it can be a source of serious injury and costly damage.

Palm Beach County will ensure that all machinery meeting the criteria for lockout located within our facilities are evaluated, and that information will be utilized to create training programs. Lockout/Tagout (LOTO) procedures, referred to as Departmental Energy Control Procedures, shall be implemented by each Department. This procedure is intended to address comprehensively the issues of evaluating and identifying potential uncontrolled energy sources, evaluating the associated potential hazards, communicating information concerning these hazards, and establishing appropriate procedures, and protective measures for employees.

Anyone who restarts and/or re-energizes machinery and/or equipment in a manner that knowingly jeopardizes the safety of other employees will be subject to disciplinary action, including possible termination.

### **RESPONSIBILITIES:**

#### **A. Department/Division Heads will:**

1. Ensure that all Supervisors and employees comply with the procedures set forth in this policy, as well as the specific methods outlined in the written Departmental Energy Control Procedures, which must be developed by the supervisors.
2. Ensure that all County LOTO Systems developed as a result of this policy are used in their proper capacity.
3. Ensure that all Authorized Employees are supplied with the proper LOTO materials (i.e. locks, keys, tags and ties, multiple lock hasps, etc...) before maintenance and/or repairs are performed.
4. Ensure that immediate action will be taken if inadequacies or deviations in the LOTO procedures are observed and reported by the supervisors performing their periodic reviews.
5. Ensure that all employees attend training and re-training, as necessary, on the purpose and function of the energy control program.

#### **B. Supervisors will:**

1. Develop a written Departmental Energy Control Procedure and perform periodic reviews of their Departmental Energy Control Procedures, documenting the results of these periodic reviews.

2. At least annually, perform a thorough review of their facilities' Departmental Energy Control Procedures and processes for the equipment, and make updates as necessary.
3. Ensure that the employees under their supervision, forward verification of their reviews of the Departmental Energy Control Procedures to the Department/Division Head.
4. Immediately inform Department/Division Heads of any inadequacies or deviations from the written Departmental Energy Control Procedure.
5. Ensure that all Affected, Authorized, and other Employees attend training and retraining as required.
6. Ensure that all Affected, Authorized, and other Employees follow the Department Energy Control Procedures in accordance with this policy and the specific procedures outlined in the Departmental Energy Control Procedure.

**C. Authorized Employees will:**

1. Follow the LOTO Departmental Energy Control Procedures and abide by the laws stated in the "AUTHORITY" section of this policy.
2. Attend training and re-training, as required.
3. Notify supervisor immediately if contractor violations occur.

**D. Affected Employees will:**

1. Cooperate and participate with Authorized Employees, Supervisors, and Department/Division Heads in the training, re-training and implementation of this LOTO Policy.

**E. Other Employees will:**

1. Cooperate and participate with Authorized Employees, Supervisors, and Department/Division Heads in the training, re-training (as necessary), and implementation of this LOTO Policy.

**F. Employee Safety / Loss Control will:**

1. Coordinate and/or provide training and re-training on LOTO procedures.
2. Ensure that periodic reviews of Departmental Energy Control Procedures, at least annually, are being performed and documented.
3. Assist Departments with LOTO written procedures for their equipment.
4. Review Departmental Energy Control Procedures and periodic inspection forms.

**PROCEDURE:**

This program presents the requirements needed to prevent the unexpected release of and contact with, hazardous electrical, chemical, thermal, mechanical, pneumatic, radiological, hydraulic, and/or other energy. This program applies to all Palm Beach County operations where machinery and/or equipment will be serviced, maintained, repaired, replaced, and/or otherwise interacted with when such work could result in exposure to hazardous energy.

**A. LOCKOUT/TAGOUT EQUIPMENT:**

A lockout device utilizes a positive means to hold an energy isolating device in a safe position and prevent the accidental release of energy (i.e. lock an electrical panel, place breakers in the “off/open” position, or prevent activation of a starter switch). Single keyed uniquely colored locks will be the only lockout devices used. In addition locks will be:

1. Capable of withstanding the environment to which they will be exposed for the maximum period of time that exposure is expected.
2. Distinctive from other locks used in the workplace.
3. Recognizable as lockout devices by all employees.
4. Clearly visible to employees in the workplace.
5. Standardized in color, shape, size and type of lock. (RED IN COLOR)
6. Durable to the degree that removal would require excessive force or unusual techniques such as the use of bolt cutters or other metal cutting tools.

A tag that identifies the Authorized Employee that applied the lockout will accompany all lockout devices. Designated safety padlocks will be used for Lockout only, and they are not permitted for any other use (i.e. Lockers, tool boxes, doors etc.)

Each lock will have only 1 key that will be retained by the Authorized Employee applying the lockout and tag.

A supply of lockout devices will be maintained in the Purchasing Warehouse. Alternatively, certain employees who are frequently required to “lock out” will be issued locks for Palm Beach County use only. Removal of a lock by someone other than the individual who attached it requires compliance with the requirements specifically outlined elsewhere in this program.

## **B. GENERAL REQUIREMENTS:**

Palm Beach County will establish LOTO procedures through the use of this document. This policy covers the servicing and maintenance of machines and equipment in which the unexpected energization or start-up of the machines or equipment, or stored energy could cause injury to employee.

Application: This policy applies to the control of energy during servicing and/or maintenance of machines and equipment. Normal production operations are not covered. Servicing and/or maintenance which takes place during normal production operations is covered if:

1. An employee is required to remove or bypass a guard or other safety device.
2. An employee is required to place any part of his or her body into an area on a machine or a piece of equipment where work is actually performed upon the material being processed (point of operation) or where an associated danger zone exists during a machine operating cycle.

Exception: Minor tool changes and adjustments, and other minor servicing activities, which take place during normal production operations, are not covered if they are routine, repetitive, and integral to the use of the equipment for production, provided that the work is performed using alternative measures which provide effective protection in accordance with County operational procedures.

This instruction does not apply to the following:

1. 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 servicing or maintenance.
2. Hot tap operations involving transmission and distribution systems for substances such as gas, steam, water or petroleum products when they are performed on pressurized pipelines, provided it is demonstrated that (1) continuity of service is essential; (2) shutdown of the system is impractical; (3) documented company procedures are followed, and (4) special equipment is used which will provide proven effective protection for our employees.

### **C. AUTHORIZATION:**

The LOTO procedures shall be implemented by qualified employees only. Qualified employees are those employees who have been trained in LOTO procedures, as outlined in this program. In addition, qualified individuals will be issued a RED colored lock and tag by Palm Beach County management, for use only by that employee. A LOTO device can only be installed if the work has been approved by a supervisor, or is part of a normal work scenario that was previously approved.

### **D. PROCEDURES:**

The employee(s) performing the LOTO shall:

1. Have knowledge of the hazards of the stored energy.
2. Perform ordinary shutdown of equipment or machine. As recorded on the LOTO procedure form, which is based upon Manufacturer's recommendations.
3. Isolate equipment from the energy source; if not familiar with the area, then contact the area supervisor or equipment operator for assistance.
4. Attach lock and tags on the main disconnect valve in its off and/or neutral position. If more than one lock is needed, a lockout hasp designed for that purpose must be used.

If more than one employee is required to perform work on a piece of machinery or equipment, additional employees must also place safety locks on the group lockout device. Each employee must leave his/her lock in place until that individual's portion of the job is completed.

All stored energy shall be relieved. (Pressurized systems vented or drained to zero pressure).

Isolation of equipment shall be verified. The employee locking out the system shall attempt to start the equipment to ensure that the energy systems are disconnected and isolated from the equipment. Should this test reveal that the main disconnect switch is not functioning, the fuses must be pulled from the main disconnect by an electrician or other trained and Authorized employee.

When lockout must be maintained between shifts, the outgoing Authorized Employee and the incoming Authorized Employee shall exchange information about the lockout. The outgoing Authorized Employee will remove his/her lockout and tag and the incoming Authorized Employee will immediately replace it. An alternative to this may be the use of an administrative LOTO device. For transactions that involve Group LOTO, only the administrative LOTO need be used during the transition period.

**E. Facility/Department Evaluation:**

Palm Beach County Risk Management (or a representative of) shall evaluate County facilities by department to determine which machines or pieces of equipment require steps for shutting down, isolating, blocking and securing machines or equipment to control hazardous energy. A complete listing of machines/equipment for which procedures have been established will be maintained at the Department level. Each machine or piece of equipment will have a specific written LOTO procedure. This procedure shall be developed by department management in accordance with manufacturer recommendations. For assistance please contact the ES/LC Division.

**F. Protective Materials and Hardware:**

Appropriate lockout devices such as; locks, lockout hasps, tags, chains, wedges, key blocks, adapter pins, self-locking fasteners, or other hardware will be provided by Palm Beach County for isolating, securing or blocking of machines or equipment from energy sources based on the individual machine/equipment evaluations.

Protective Hardware Selection Criteria.

1. Lockout devices shall be singularly identified: shall be the only devices(s) used for controlling energy; shall not be used for any other purposes; and shall meet the following requirements:
  - a. Selected lockout devices shall be capable of withstanding the environment to which they are exposed for the maximum period of time that exposure is expected.
  - b. Selected lockout tags shall be constructed and printed so that exposure to weather conditions or wet and damp locations will not cause the tag to deteriorate or the message on the tag to become illegible.
  - c. Tags shall not deteriorate when used in corrosive environments such as areas where acid and alkali chemicals are handled and stored.
  - d. LOTO shall be standardized within the county in at least one of the following criteria: color, shape, or size; and additionally, in the case of the tags, the print and format shall be standardized.
2. Removal requirements.
  - a. Lockout devices – Lockout devices shall be substantial enough to prevent removal without the use of excessive force or unusual techniques; such as with the use of bolt cutters or other metal cutting tools.

- b. Lockout tags – Lockout tags, including their means of attachment, shall be substantial enough to prevent inadvertent or accidental removal. Tag 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 have the general design and basic characteristics of being at least equivalent to a one-piece, all-environment-tolerant nylon cable tie.
- 3 Identification/Notification requirements.
- a. Lockout devices shall indicate the identity of the Authorized Employee applying the device(s). (properly attached tag or name engraved on lock)
  - b. Tags shall warn against hazardous conditions if the machine or equipment is energized and shall include a legend such as the following: Do Not Start, Do Not Open, Do Not Close, Do Not Energize, Do Not Operate, etc.
  - c. Before applying LOTO mechanism, inform affected employees in all affected areas of the impending LOTO situation, the reason for it and the estimated start and duration times.
4. Equipment Shutdown and Isolation
- a. Before an authorized or affected employee turns off a machine or equipment, the authorized employee must have knowledge of the type and magnitude of the energy ,the hazards of the energy to be controlled, and the methods or means to control the energy.
  - b. Place all switches in the “off” or “safe” position.
  - c. Disconnect sources of power, ensuring all sources of both primary and secondary power to the equipment are interrupted.

**G. Periodic Inspections and Certifications:**

- 1. Department Supervisors shall conduct a periodic review of the Departmental Energy Control Procedure for each type of machine or piece of equipment at least annually to ensure that the procedure and the requirements of this policy are being followed This will be completed during the periodic Risk Management or Department Safety Committee Audit of the department.
- 2. An Authorized Employee other than the one(s) utilizing the energy control procedure being inspected, shall perform the periodic review.
- 3. Employees authorized to evaluate lockout requirements will conduct reviews.



4. The periodic review shall be conducted to correct any deviations or inadequacies identified.
5. Where lockout is used for energy control, the periodic review shall include a review between the inspector and each Authorized Employee, of that Employee's responsibilities under the Departmental Energy Control Procedure being inspected.
6. Records of periodic reviews will be maintained in the Department and each inspector's file.
7. Records of all compiled annual safety inspection reports will be maintained in the ES/LC's Department Inspection files.
8. Palm Beach County shall certify that the periodic reviews have been performed. The certification shall at a minimum identify:
  - a. The machine or equipment on which the Departmental Energy Control Procedure was being utilized.
  - b. The date of the review.
  - c. The Employees included in the review.
  - d. The person performing the review.

#### **H. Removal of Lockout Devices:**

Prior to removal of lockout devices, employees shall ensure that the equipment is operationally intact and that personnel are clear of the area and machinery.

The employee who installed the LOTO shall remove the lockout device. During shift changes, or for any reason, the departing employee will remove their lock and the incoming employee will place their lock on the disconnect, before continuing work.

Whenever possible, lockout devices must only be removed by the employee who attached the device. When this is not possible, the supervisor of the employee who attached the device may remove the device but only after:

1. Verification has been made that the employee who applied the LOTO device is not present at the facility.
2. Every effort has been made to notify the employee that his/her LOTO device will be removed.

3. Provisions are made to inform the employees of the removal of the LOTO devices prior to their resuming work at the facility.
4. Employees shall be safely positioned or removed from the area.
5. The energy source shall be isolated, locked out, and verified in accordance with established procedures prior to resumption of work. All identified energy sources shall be properly dissipated prior to any work being started on the equipment.

**I. Group Lockout:**

When a crew, craft, department, or other group performs lockout work, they shall utilize an approach that affords the employee a level of protection equivalent to that provided by the implementation of a personal lockout device. Requirements are as follows:

1. Each Authorized Employee shall affix a personal LOTO device to the group lockout device, group lockbox or comparable mechanism when he/she begins work and shall remove those devices when he/she stops work.
2. If LOTO work will be performed by more than one shift, specific procedures have been established in this document and shall be utilized to ensure the continuity of lockout protection.

**J. Shift or Personnel Changes:**

Specific procedures shall be utilized during shift or personnel changes to ensure the continuity of LOTO protection, including provisions for orderly transfer of lockout device protection between off-going and oncoming employees to minimize exposure to hazards from the unexpected energization or start-up of the machine or equipment, or the release of stored energy.

**K. Troubleshooting:**

On occasion, it may be necessary to have power to the equipment that is being worked on. Once the trouble is identified, the unit is to be shut down, locked out, and repaired. The Authorized Employee and their immediate supervisor shall be responsible for assuring that no individual is exposed to hazards from the equipment when “hot” work is being done.

**L. Energized Electrical Parts And/Or Circuits**

Work on energized electrical parts or circuits should only be done as a last resort. The County policy is to shut down and LOTO all circuits to perform work whenever possible. Energized work should always include, but is not limited to:

1. The use of electrical insulated rubber gloves, flame resistant clothing appropriate to the potential hazard, blankets, head and face shield, and insulated tools that have been certified/approved to withstand voltages that apply to the work being done.
2. Securing the area to prevent other persons from being exposed to the hazard.
3. Observing the safe work practices set forth in this policy.

**M. Insulated Equipment/Personal Protective Equipment**

Employees working in areas where there are potential electrical hazards **SHALL BE PROVIDED WITH, AND SHALL USE**, electrical protective equipment that is appropriate for the specific parts of the body to be protected and for the work to be performed. Employees shall wear nonconductive head protection wherever there is a danger of head injury from electric shock or burns due to contact with exposed energized parts. Employees shall wear protective equipment for the eyes or face wherever there is danger of injury to the eyes or face from electric arcs or flashes or from flying objects resulting from electrical explosion

The following schedule for re-certification of insulated equipment must be followed:

- Gloves – every 6 months
- Blankets, boots, line hose, hoods, sleeves, hot sticks, mats – annually

Each Department is responsible for the re-certification of all insulated equipment by a knowledgeable individual in accordance with the above schedule. The ES/LC Division of Risk Management will ensure that a vendor is provided for Departments to obtain this recertification if a knowledgeable individual is not available.

**N. ENFORCEMENT**

Anyone who intentionally violates the following listed LOTO provisions will be subject to disciplinary action up to and including termination:

1. Breaking the safety LOTO device or removing the lockout tag by an unauthorized individual.
2. Failure to attach a tag and lock when working on the equipment will pose a danger to operators.

3. Attaching a tag and lock when not working on equipment.
4. Any attempt to operate a device to which a tag or lock is attached.
5. Removal of an attached LOTO device by other than the person authorized.

Every effort should be taken to use known LOTO procedures as they are developed and communicated to the employee.

The correct use of a safety LOTO assures the personal safety of all employees.

**O. Records**

1. Records of the periodic reviews of Departmental Energy Control Procedures will be maintained in both the Department, and in each inspector's own file.
2. All LOTO Forms are located on the County Intranet at the Risk Management page.

  
VERDENIA C BAKER  
COUNTY ADMINISTRATOR

**Suppression History**

1. PPM# RSO-104, effective 1/19/1996
2. PPM#CW-O-070, effective 1/26/2000
3. PPM#CW-O-070, effective 2/7/2000
4. PPM#CW-O-070, effective 2/23/2011
5. PPM# CW-O-070, effective 3/24/2016
6. PPM # CW-O-070, effective 3//2021

## Attachment 1 (Definitions)

### A. DEFINITIONS:

1. **Administrative Locks:** Locks installed by a supervisor that are BLUE in color shall be used during a LOTO event along with a LOTO tag to provide protection during shift change and/or longer-term maintenance activities from one personal lock to another. Administrative locks and LOTO tags shall not be used on defective equipment prior to lockout activities. Administrative locks are not to be used in lieu of personal locks. Keys must exist to allow removal by Authorized Employees; however they must be carefully controlled by responsible supervision. Administrative locks shall not be used for events such as seasonal shutdown, defective equipment or removal from service.
2. **Authorized Employee** is one who has the knowledge and experience to properly de-energize and LOTO the machinery or equipment, and who is capable of verifying that the machine or equipment has been properly and completely de-energized.
3. **Affected Employee** is one who is not the Authorized Employee but will be in the area where LOTO will be performed.
4. **Capable of being locked out** – An energy isolating device is capable of being locked out if it has a hasp or other means of attachment to which, or through which, a lock can be affixed, or it has a locking mechanism built into it. Other energy isolating devices are capable of being locked out, if lockout can be achieved without the need to dismantle, rebuild, or replace the energy-isolating device or permanently alter its energy control capability.
5. **Danger “DO NOT OPERATE EQUIPMENT LOCKED OUT TAG”:** Forewarns that danger to the person who attached the tag is imminent. The presence of a tag and RED lock always means that an Employee is actively working on the equipment, and may be injured if the LOTO device is operated. **NO OTHER USE IS PERMITTED.**
6. **Energized** – equipment/machinery or mechanical equipment that is connected to an energy source and/or containing remainder or stored energy.
7. **Energy Isolating Device** – A mechanical device that physically prevents the transmission or release of energy, including but not limited to the following:
  - A manually operated electrical circuit breaker.
  - A disconnect switch
  - Manually operated switches by which the conductors of a circuit can be disconnected from all ungrounded supply conductors, and in addition, no pole can be operated independently.

- A line valve; a block; and any similar device used to block or isolate energy.
8. **Energy Source** – Any source of electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or other energy.
  9. **Hot Tap** – A procedure used in the repair, maintenance and services activities that involves welding on a piece of equipment (pipelines, vessels or tanks) under pressure, in order to install connections or appurtenances. It is commonly used to replace or add sections of pipeline without the interruption of service for gas, air, water, steam and petrochemical distribution systems.
  10. **Lockout** – The placement of a lockout device and tag on an energy isolating device, in accordance with an established procedure, ensuring that the energy isolating device and the equipment being controlled cannot be operated until the lockout device and tag is removed.
  11. **Lockout Device** – A device that utilizes a positive identifying means, with one key, to hold an energy isolating device in a safe position and prevent the energizing of a machine or equipment. Included are blank flanges and bolted slip blinds.
  12. **Machine Specific Energy Control Procedures:** - A written procedure for a particular equipment or machinery which is developed based upon manufacturer's recommendations, documented and utilized for the control of potentially hazardous energy when employees are involved in activities covered by this procedure. The procedure shall clearly and specifically outline the procedural steps for shutting down, isolating, blocking and securing the machine or equipment to control hazardous energy. This is usually required for equipment with multiple energy sources.(**FOR EXAMPLE, SEE APPENDIX "B"**).
  13. **Normal Production Operations** – The utilization of a machine or equipment to perform its intended production function.
  14. **Personal Lock** - A lock given to a specific employee for them to use in a LOTO operations. This lock shall be RED in color and uniquely keyed and accompanied by a tag that identifies the person who installed it.
  15. **Servicing and/or Maintenance** – Workplace activities such as constructing, installing, setting up, adjusting, inspecting, modifying, and maintaining and/or servicing machines or equipment. These activities included lubrication, cleaning or un-jamming of machines or equipment and making adjustments or tool changes, where the employee may be exposed to the unexpected energization or startup of the equipment or release of hazardous energy.
  16. **Setting Up** – Any work performed to prepare a machine or equipment to perform its normal production operation.

17. **Tagout** – The placement of a tagout device on an energy isolating device, in accordance with an established procedure, to indicate that the energy isolating device and the equipment being controlled may not be operated until the tagout device is removed. This procedure should only be used after a thorough evaluation of the hazards and alternative safeguards are taken.
18. **Tagout Device** – A prominent warning device, such as a tag and a means of attachment, which can be securely fastened to an energy isolating device in accordance with an established procedure, to indicate that the energy isolating device and the equipment being controlled may not be operated until the tagout device is removed
19. **Zero Energy State:** A condition which indicates that all energy sources/systems are completely de-energized and without residual or stored energy and verified.

