

**BAY CITY DEPARTMENT OF PUBLIC SAFETY  
BAY CITY, MICHIGAN**

SECTION 2 - PUBLIC SAFETY  
GENERAL ORDER

July 26, 2017  
INDEX NO. 2.11

**CONTROL OF HAZARDOUS ENERGY PROGRAM (LOCK OUT / TAG OUT)**

**I. PURPOSE**

The purpose of this General Order is to establish the minimum requirements for the lockout of energy sources whenever maintenance or servicing work is done on machines or equipment. It shall be used to ensure that the machine or equipment is stopped, isolated from all potentially hazardous energy sources, and locked out before employees perform any servicing or maintenance work where the unexpected or unintended energizing or start-up of the machine or equipment, or release of stored energy could cause injury. This program has been developed to comply with MIOSHA Part 85.

**II. POLICY**

All employees are required to comply with the requirements of lockout and are required to perform the lockout following this procedure. All employees, upon observing a machine or piece of equipment is locked out for servicing or maintenance work, shall not attempt to start, energize, or use that machine or equipment. Employees shall consult with a supervisor whenever there are any questions regarding energy control procedures or methods. Fire Operations supervisors shall enforce the energy control procedure including the use of corrective action when necessary. This program will be administered by the Fire Chief's designee.

**III. APPLICATION**

**A. Locks and Identification Labels** - Each station will have the necessary equipment to perform the lock out. This will include keyed padlocks that are red in color. The key will be in possession of the employee using the safety lockout lock. The red safety locks used shall have a durable tag attached which indicates a lockout condition and the name of the employee who attached the safety lock and the date and time applied. The red safety locks are for the personal protection of employees and are used solely for the control of hazardous energy sources.

**B. What to Lockout** - During servicing or maintenance, a machine utilizing any mechanical power source such as electrical, pneumatic, steam, hydraulic, or air must be locked out when the unexpected energizing or start-up of the machine or equipment or release of stored energy could cause injury to employees. The lockout must render the machine inoperative and immovable.

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**C. When Lockout Methods are Required**

1. Equipment Cleaning or Jam-Clearing Tasks - Lockout must be used when a normally moving piece of equipment is stopped for cleaning, clearing, or adjustment during which a start-up could cause injury.
2. Equipment Repair - Lockout must be used whenever a repair is being performed on or near equipment where there is a possibility of injury as a result of starting the equipment. This includes any and all equipment from which a guard or other safety device has been removed.
3. Installation Tasks - Frequently during installation, either part or all of the components making up the installation can be operated before installation is complete. If needed for testing, precautions must be taken to prevent injuries to personnel during the test periods and the equipment again locked out when the test is complete or interrupted.
4. Electrical Repair Tasks - Whenever any work other than testing is to be performed on an electrical circuit, the wiring involved must be deactivated and locked out so that it cannot be reactivated during this work.

**D. Group Lockout** - Before the work begins, the lockout procedure will be reviewed with each group member. One authorized employee will be designated as responsible for the lockout. If more than one division, shift, etc. is involved, one authorized employee will coordinate the lockout to ensure that all control measures are applied and that there is continuity of protection for the group. Each authorized employee will affix a red safety lock to the group lockout and will remove the lock when work is stopped on the machine or equipment. Each lock must have that person's name on the durable tag affixed to it.

**E. Shift Changes** - When personnel change shifts before work is completed, the key to the red safety lock will be given to the authorized person coming on duty.

**F. When Lockout Methods are not Required**

1. Minor tool changes (for example, changing a drill bit) are not covered when a stop button is used to control unexpected motion during the tool change or minor adjustment and when the start button is both visible and under the individual's immediate control.

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2. Cord and plug connected equipment must be unplugged and under the exclusive control of the employee performing the service or maintenance work. The plug must physically be in the possession of the employee, or in arm's reach and in the line of sight of the employee.
3. Repair, trouble-shooting and set-up adjustments must be performed on the energized equipment only when it is absolutely necessary to leave the machine energized. For the purpose of this procedure, the trouble-shooting process will end and a lockout will be required when:
  - a. Power is shut off.
  - b. A particular problem has been located and repairs are initiated.
  - c. Individual machine components are being replaced.
  - d. Circuit changes are being made.

**IV. PROCEDURES**

The essential part of the lockout of any equipment or lines is to ensure that the equipment cannot be started or source lines opened by unauthorized personnel during servicing and maintenance work. If you have questions relating to the appropriate procedures to be followed, a Fire Operations supervisor shall be asked prior to commencing work.

**A. Application of Lockout Control**

1. Preparation for Shutdown - Red safety locks and the key will be kept by the authorized person who placed the lock. The authorized person shall review the written lockout procedure to have complete understanding of the type(s) and magnitude of the energy, the hazards to be controlled, and the methods or means to control the energy.
2. Notification of Employees - Affected employees shall be notified by the authorized employee that the machine or equipment is going to be locked out.
3. Machine or Equipment Shutdown - The machine or equipment shall be turned off or shut down using the energy control procedures established for the machine or equipment.
4. Machine or Equipment Isolation - All energy isolating controls that are needed to control the energy of 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.

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5. Lockout Device Application - The lock adapter and lock shall be affixed in such a manner as to hold the energy isolation devices in a safe or off position.
6. Notification of Affected Personnel - Affected employees shall be notified by the authorized employees that the machine or equipment is locked out. In addition to verbal notification, a sign indicating a power lockout condition will be placed near the machine or equipment controls.
7. Verification of Isolation - Prior to starting work on a machine or equipment that has been locked out, each authorized employee involved shall verify that the isolation and de-energizing of the machine or equipment has been accomplished by testing the effectiveness of the lockout by attempting to cycle the machine or start the equipment at the motor control center panel or start / stop switch. Each authorized employee will notify other authorized and affected personnel in the area that they are going to attempt to cycle the machine or equipment prior to doing so and shall ensure that personnel are free and clear of the machine or equipment prior to operating the controls. If the controls activate the machine or equipment or cause any machine or equipment movement, the authorized personnel will begin again at the section Preparation for Shutdown. If there is the possibility of re-accumulations of stored energy to a hazardous level, verification of isolation shall be continued until the servicing or maintenance is completed, or until the possibility of re-accumulation no longer exists. Stored or potential energy will be relieved, restrained, or otherwise made safe.
8. Begin Work Activity - Work activity will begin once each authorized employee involved has verified that the current control of hazardous energy sources has been effective.

**B. Testing / Positioning of Machine / Equipment / Components**

In situations in which lockout devices must be removed from energy isolation devices and the machine or equipment energized to test or position the machine, equipment, or component, the following sequence of actions shall be followed:

1. Clear the machine or equipment of tools and materials.
2. Remove employees from the machine or equipment area.

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3. Notify affected employees that the lockout devices are going to be removed.
4. The authorized employee who applied the red safety lock will remove it.
5. Notify affected personnel that the red safety lock has been removed and that the machine or equipment is going to be energized.
6. Energize and test the equipment.
7. De-energize all systems and reapply energy control measures in accordance with the procedures discussed in this policy.

**C. Lock Removal**

Each lockout lock shall be removed from the energy isolating device by the authorized employee who applied it. A lockout must never be broken (lock removed) by anyone other than the person who performed that lockout.

**D. Emergency Scenes**

These procedures shall also be utilized on all emergency scenes.

**V. TRAINING REQUIREMENTS**

**A.** All employees will receive training in the following:

1. The recognition of applicable hazardous energy sources.
2. The type and magnitude of the energy available in the work place.
3. The methods and means necessary for energy isolation and control.
4. The responsibility not to restart or re-energize machines or equipment which are locked out.

**B.** Retraining shall be provided for all employees whenever there is a change in machines, equipment, or processes that present a new hazard, or when there is a change in the energy control procedures.

**C.** Additional retraining shall also be conducted whenever periodic inspection reveals, or whenever there is reason to believe, that there are deviations from or inadequacies in the employee's knowledge or use of the energy control procedures.

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- D.** Retraining will re-establish employee proficiency and introduce new or revised control methods and procedures, as necessary.
  
- E.** The Fire Chief's designee shall certify that employee training has been accomplished and is being kept up to date. Certification shall include written documentation containing the employee's name, the dates of training, and a signed statement by the Fire Chief's designee that the training has been conducted.

**VI. AUDIT**

On an annual basis, the Fire Chief's designee must audit the department's Lock Out / Tag Out Program. The audit will determine if the department is adhering to this written policy, as well as the requirements of MIOSHA Part 85.

By order of:

  
Michael J. Cecchini  
Public Safety Director