

# **State of Iowa Department of Corrections**

## **Policy and Procedures**

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Applicability: Institutions, CBC, IPI

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Chapter 3: INSTITUTIONAL OPERATIONS

Sub Chapter: SAFETY AND EMERGENCY

Related DOC Policies: IO-SE-03

Administrative Code Reference: 875-10

Subject: CONTROL OF HAZARDOUS ENERGY (LOCKOUT/TAGOUT)

PREA Standards: N/A

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### **1. PURPOSE**

To describe the lockout procedures that shall be used in each Iowa Department of Corrections (IDOC) institution and applicable residential facility.

### **2. POLICY**

It is the policy of the IDOC to protect staff and incarcerated individual workers from injury and illness by the unexpected and/or unrestricted release of hazardous energy during maintenance and service operations of machines, processes or systems through lockout procedures. This policy shall be available to appropriate staff and incarcerated individuals in designated work assignments, reviewed and updated at least annually.

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### **3. DEFINITIONS - As used in this document:**

- A. Affected Worker - An employee or incarcerated individual worker whose job assignment includes:
  - 1. Operating a machine or equipment on which servicing or maintenance is being performed under lockout procedures.
  - 2. Working in an area where such servicing or maintenance is being performed.
  - 3. Incarcerated individuals who provide cleaning or maintenance services under the supervision of an employee are considered Affected Workers.
- B. Authorized Employee - A person who locks or implements a lockout system procedure on machines or equipment to perform the servicing or maintenance on that machine or equipment. Persons who supervise the cleaning or maintenance of a machine/equipment by incarcerated individuals are Authorized Employees, and have the responsibility for following these procedures.
- C. Capable of Being Lockedout - An energy isolating device is capable of being Lockedout 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 Lockedout, if lockout

can be achieved without the need to dismantle, rebuild, or replace the energy isolating device or permanently alter its energy control capability.

- D. Energized - Connected to any energy source or containing residual or stored energy.
- E. Energy Source - Any source of electrical, mechanical, hydraulic, pneumatic, chemical, thermal or other energy.
- F. 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 disconnecting switch; a manually operated switch by which the conductors of a circuit can be disconnected from all ungrounded supply conductors in addition, no pole can be operated independently; a line valve; a block; and any similar device used to block or isolate energy. Push buttons, selector switches, emergency stops and other control circuit type devices are not energy isolating devices.
- G. Lockout - The placement of a lockout device 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 is removed.
- H. Lockout Device - A device that utilizes a positive means such as a key operated lock to hold an energy isolating device in a safe position and prevent the energizing of machine or equipment. Included are blank flanges and bolted slip blinds.
- I. Maintenance - Workplace activities such as constructing, installing, setting up, adjusting, inspecting, modifying and maintaining machines and equipment.
- J. Other employees: All employees who are or may be in an area where energy control procedures may be utilized.
- K. Service Lock – A lock placed on equipment or machines that are not in service.
- L. Servicing - Workplace activities such as lubrication, cleaning and unjamming of machines or equipment, and may include making adjustments or tool changes if the affected employee is exposed to the unexpected start-up or energization of the machine or equipment or the release of energy.

- M. Tag - A tag that identifies the person using the lockout procedure and is affixed to the lock.

## **4. PROCEDURES**

### **A. Applicability**

1. All staff and incarcerated individuals of the IDOC Correctional Institutions.
2. All staff and clients in residential facilities where appropriately trained staff may be required to maintain or service equipment.
3. Contract personnel performing or supervising maintenance.
4. Servicing activities where energy creates a potential hazard.
5. These procedures also apply to electrical work.

### **B. Responsibility**

1. The Safety Officer or designated residential staff is responsible for the overall implementation and monitoring of the provisions of this policy and to assist supervisory staff in scheduling training at appropriate intervals.
2. The Associate Warden of Administration or designated residential staff is responsible for ensuring that staff under his/her supervision complies with the provisions of this policy.
3. Maintenance staff are responsible for attending all hazardous energy training provided, and ensuring that all necessary precautions are followed to provide for adequate protection from hazardous energy sources. Maintenance staff who supervise incarcerated individual workers will ensure that incarcerated individuals follow all necessary precautions.
4. All staff, including contract personnel, are responsible for the maintenance or operation of machines, processes or systems that could be a potential hazardous energy source.

### **C. Selection of Appropriate Method**

1. Lockout procedures are the preferred method of energy isolation, and shall be used whenever and wherever possible.
2. Tagout procedures are essentially warning devices and do not provide the physical restraint on energy isolating devices that is provided by a lock and are not allowed within the IDOC.
3. A tag will be displayed along with the lock identifying the name of the person attaching the tag and the date the tag was attached. On the opposite side of the tag it will read "Danger Do Not Operate" This tag and lock is to be removed only by person shown on back.
4. Plug and Cord Connected Equipment: The following procedures apply to work performed on plug and cord connected electrical equipment for which exposure to the hazards of an unexpected surge of energy or start up of the equipment is controlled by unplugging the equipment from the energy source. The plug must be under the exclusive control of the worker who performs the servicing or maintenance. Exclusive control means:
  - a. The worker has physical possession of the cord, or
  - b. The cord is within arms reach and in line of sight of the worker, or
  - c. The worker has affixed a lockout/tagout device on the plug.
5. Equipment out of order or awaiting maintenance, a service lock shall be placed on equipment to ensure equipment is not used.

### **D. Electrical Energized Work Permit**

1. An energized work permit will only be used in cases where it is not feasible to de-energize the equipment or by doing so will cause a greater hazard.
2. Only authorized and trained individuals shall use the Electrical Energized Work Permit.
3. Prior to working on the equipment **IO-SE-21 F-2, *Electrical Energized Work Permit***, shall be completed and approved.

4. The Electrical Energized Work Permit does not replace the Lockout/Tagout (LO/TO).

#### **E. Lockout Devices**

1. Lockout devices shall be key/card operational locks.
2. All lockout devices in a maintenance group shall be color coded and identified to each individual.
3. Each lock will have its own individual key/card that will be controlled only by the person affixing it to a machine.

#### **F. Preparation for Lockout/Tagout**

1. Each machine or piece of equipment will have specific procedures for the authorized employee to follow to safely isolate the equipment's energy. In the event a specific procedure is not in place for a particular machine or piece of equipment, the employee will not continue with any work until a procedure is developed.
2. Specific procedures for locking out a machine or piece of equipment shall be posted or attached to the machine or equipment or in the possession of the authorized person conducting the work.
3. A thorough inspection shall be performed to identify all potential hazardous energy sources, including adjacent equipment or energy sources that represent hazards to personnel. More than one energy source (electrical, mechanical, pneumatic, or other) may be involved.
4. All affected employees shall be notified that a lockout system is going to be utilized and the reason therefore.
5. Operate the switch, valve or other energy isolating devices so that the equipment is isolated from all energy sources. Stored energy (such as that in springs, rotating flywheels, elevated machine members, hydraulic systems, pneumatic, gas, steam, water pressure, etc.) must be dissipated or restrained by methods such as repositioning, blocking, bleeding down, etc.

6. Apply, sign and date energy isolating devices with assigned individual locks and tags.
7. Ensure that no personnel are exposed, and as a check on having disconnected the energy sources, operate the normal operating controls to make certain the equipment or machine will not operate. Return the controls to the "off" or "neutral" position after the test.
8. If more than one individual is required to lockout equipment, each shall place their personal lockout device on the energy isolating equipment. When an energy isolating device cannot accept multiple locks, a multiple lockout device (hasp) may be used. An alternative would be to use a single lock to lockout the machine or equipment with the key being placed in a lockout box or cabinet which allows the use of multiple locks to secure it. Each employee will then use their own locks to secure the box or cabinet. As each person no longer needs to maintain their lockout protection, that person will remove their lock from the box or cabinet. Each person will have sole control of their specific lockout device.

## **G. Lockout Device Removal**

1. When the energy isolating device is no longer needed, the lockout device may be removed by the authorized employee who applied the device. When the authorized employee (which may be authorized staff or incarcerated individual) who applied the device is not available, the device may be removed under the direction of the Plant Operations Manager, Safety Officer, or supervisor as designated by institutional procedures.
2. All reasonable efforts to contact the authorized employee to inform him/her that the lockout device has been removed shall be made and documented.

## **H. Training**

1. See **IO-SE-03**, *Safety and Health Program Management* for training requirements.
2. All institutional and applicable residential employees shall be trained to at least the affected level.

## **I. Periodic Inspection**

1. An annual inspection of energy control procedures shall be conducted to ensure the procedure and the requirements of this policy are being followed.
2. The periodic inspection shall be performed by the Safety Officer and each authorized employee that utilizes LO/TO.
3. The periodic inspection shall be conducted to correct any deviations or inadequacies identified.

The periodic inspection shall include name of persons involved, equipment/procedure reviewed, date of inspection, and comments if applicable. The documentation shall be retained for 5 years.

## **J. Group Lockout**

1. When servicing and/or maintenance is performed by a crew, craft, department or other group, they shall utilize a procedure which affords the employees a level of protection equivalent to that provided by the implementation of a personal lockout device.
2. The POM will designate an authorized employee that has primary responsibility for a set number of employees working under the protection of a group lockout device (such as an operations lock).
3. Each authorized employee shall affix a personal lockout device to the group lockout device, group lockbox, or comparable mechanism when he or she begins work, and shall remove those devices when he or she stops working on the machine or equipment being serviced or maintained.
4. Specific procedures shall be utilized during shift or personnel changes to ensure the continuity of lockout protection, including provision for the orderly transfer of lockout device protection between off-going and on-coming employees, to minimize exposure to hazards from the unexpected energization or start-up of the machine or equipment, or the release of stored energy.



5. Each authorized employee will have sole control of their specific lockout device.

#### **K. Outside Personnel (Contractors, etc.)**

Whenever outside servicing personnel are to be engaged in activities covered by the scope and application of this standard, the on-site employer and the outside employer shall inform each other of their respective lockout procedures. Outside contractors are not required to utilize the IDOC LOTO procedures.

Residential facilities that rely solely on outside contractors to perform servicing and maintenance shall ensure any contractor provides their LOTO program to residential facility staff.