CITY OF SACRAMENTO REGULATORY COMPLIANCE PROGRAM
TOPIC: ENERGY CONTROL PROGRAM (LOCKOUT/TAGOUT)
EFFECTIVE DATE: 12/01/2017
SUPERSEDES: N/A
SECTION: RCP #19

PURPOSE AND SCOPE

This program meets the requirements of Title 8, Sections 2320 and 3314 of the California Code of Regulations to establish a program and utilize procedures for affixing appropriate Lockout/Tagout devices to isolate or otherwise disable machinery or equipment to prevent unexpected energization, start-up, or release of stored energy to prevent injury to employees and damage to equipment.

This program covers the servicing and maintenance of machines or equipment in which the unexpected energization, start up, or release of energy could cause injury to employees. This program supersedes all previous division procedures.

Exceptions - This program does not apply to the following equipment and operations.

Cord and Plug Equipment
Work on cord and plug connected electrical equipment controlled by unplugging of the equipment from the energy source and under the exclusive control of the employee performing the servicing or maintenance.

Minor Tool Changes and Adjustments
Including other minor servicing activities, which take place during normal production operations if they are routine, repetitive, and integral to the use of the equipment or machinery for production, provided that the work is performed using alternative measures which provide equally effective protection.

Hot Tap Operations
Involving transmission and distribution systems for substances such as gas, steam, or water when they are performed on pressurized pipelines, provided the employer demonstrates that; continuity of service is essential; shutdown of system is impractical; documented procedures are followed, and special equipment is used to provide proven, effective protection for employees.

ROLES AND RESPONSIBILITIES

Environmental Health and Safety Specialist

1. Ensure that adequate LOTO procedures are developed to ensure the safety of employees and/or machinery or equipment;

2. Ensure that all supervisors receive training on the LOTO program;

3. Assist Department Representatives/Supervisors in determining policy compatibility with outside contracted employer's LOTO policy; and

4. Conduct an annual LOTO program review for updates or changes.

Supervisors

1. Ensure that LOTO procedures are implemented in his or her areas of operations;

2. Ensure that employees under his or her supervision apply LOTO procedures where necessary;

3. Ensure that employees under his or her supervision has received training in the LOTO program requirements;

4. Ensure the availability of locks, tags, lockout box(s), and equipment specific lockout procedure(s) to all employees who are required to use them;

5. Determine who will be the Responsible/Lead (Primary) Authorized Employee for coordinating multiple source/multiple crew lock outs;

6. Conduct a periodic inspection of the energy control procedure, at least annually, to ensure that the procedure and the provisions of this program are being followed; and

7. Ensure outside contractors have a LOTO policy that complies with all applicable regulations and is at least as stringent as the City's policy when work is shared with employees.

Authorized Employees

1. A person who locks or tags out a piece of equipment to perform maintenance on that equipment;

2. Conduct, implement and coordinate hazardous energy isolation LOTO procedures as required by this program;

3. Verify equipment specific lockout procedure (multiple source) is accomplished and apply his or her own craft lock and tag, or his or her own lock on the lock box key section, or, apply his or her own locks and tags to each energy isolation point, leave his or her locks on for the duration of work, and remove his or her locks after his or her work is complete, as required by this program. They alone, apply his or her own locks and tags and no one else as required by this program;

4. Notify affected employees of the application and removal of LOTO devices in the work area;

5. Attend LOTO training. Responsible/Lead (Primary) authorized employee will coordinate, conduct, and implement hazardous energy isolation for multiple source/multiple crews LOTO procedures as required by this program;

6. Apply and remove the department's specific locks and tags on all applicable energy isolation points (multiple source) as required by this program;

7. Complete equipment specific energy isolation lockout procedure as required by this program; and

8. Notify authorized employees when equipment lockout procedure is complete, and lockout of energy isolation points are accomplished (Craft lock or lock box), or, coordinate all energy isolation points are locked out and tagged by each Authorized Employee as required by this program;

9. Notify affected employees of the application and removal of LOTO devices in the work area. Assist in developing an energy specific lockout procedure for equipment that requires a procedure and does not exist.

Affected Employees

1. An employee whose job requires him or her to operate or use a machine or equipment on which servicing, or maintenance is being performed under LOTO, or whose job requires him or her to work in an area in which such servicing or maintenance is being performed;

2. Abide by the rules of the LOTO program;

3. Follow instructions of authorized employees; and

4. Contact supervisor if there are any questions concerning the LOTO situation.

Requirements

1. **Environment**
   Lockout/Tagout devices must be capable of withstanding the environment to which they are exposed. Tagout devices must be constructed and printed so that exposure to weather or wet/damp locations will not cause the tag to deteriorate or the message to become illegible.

2. **Standardization**
   Lockout/Tagout devices must be standardized on at least one of the following criteria: color, shape, or size. Tagout devices must be standardized as to print and format.

3. **Quality**
   Lockout devices must be substantial enough to prevent removal without the use of excessive force or unusual techniques such as bolt cutters or other metal cutting tools. Tagout devices and their means of attachment must be substantial enough to prevent inadvertent or accidental removal. Tagout device attachment means must be non-reusable, attachable by hand, self-locking, and non-releasable with a minimum unlocking strength of no less than 50 pounds.

4. **Identification**
   Lockout/Tagout devices must indicate the identity of the employee applying the device, the employee's phone number and/or radio number, the time and date of placement, and the reason the lock/tag was placed. Lockout devices must always be accompanied by a tag to convey this information.

5. **Craft Locks** are identified by color according to their designated assigned Craft.

Lockout Not Possible

1. **Tagout in Place of Lockout**
   When only a tag is used (lockout not possible), employees must be aware that the tag represents a lockout device and must be treated as such. Employees must also be aware that a tag is essentially a warning device and does not provide the physical restraint that a lock does.

2. **Machinery or Equipment**
   When machinery or equipment is encountered which, due to its design, cannot be locked out, the employee discovering this situation will notify their supervisor. The responsible Department/Division

for this machinery or equipment will review its design and make all reasonable attempts to modify it so that it can be locked out.

IDENTIFICATION OF ENERGY ISOLATING DEVICES

The location and identification of energy isolating devices for machinery and equipment must be clearly marked.

Requirements

The identification and marking of energy isolating devices may only be performed by a qualified person.

1. **Markings**
   Marking may consist of signs, labels, tags, or other devices which convey the appropriate information;

2. **Contractors**
   When the location and marking of energy isolating devices is required to be performed by a contractor. City designated inspectors must ensure this requirement is met before signing off on work.

PLACEMENT OF LOCKOUT/TAGOUT DEVICES

Requirements

Lockout/Tagout devices may only be placed by authorized employees.

1. **Machinery or Equipment**
   Lockout/Tagout devices must be placed on machinery or equipment when servicing or maintenance activities are performed in which the unexpected energization, start-up, or release of stored energy could cause injury to an employee;

2. **Tagout in Place of Lockout**
   If an energy isolating device is capable of being locked out, lockout must be used. If the energy isolating device is not capable of being locked out, tagout will be utilized. When tagout is used, at least one additional safety measure shall be employed. Examples of additional safety measures can include the removal of fuses, blocking of a controlling switch, or opening an extra disconnecting device to reduce the likelihood of inadvertent energization/operation.

Steps for Applying Lockout/Tagout Device

When applying a Lockout/Tagout device the following steps must be completed in sequential order:

Step 1:
Preparation for Shutdown - Before an authorized or affected employee turns off machinery or equipment, that employee must have knowledge of the type and magnitude of the energy, the hazards of the energy, and the method or means to control the energy. The appropriate control center must also be contacted before the equipment is taken out of service.

Step 2:
Employee Notification - Affected employees must be notified by the employer or authorized employee of the application (or removal) of Lockout/Tagout devices. Notification must be given before the devices are applied (or removed).

STEP 3:
Machinery or Equipment Shutdown - Machinery or equipment must first be stopped, shut down, or turned off using the normal stopping procedure such as a stop button or toggle switch.

STEP 4:
Machinery or Equipment Isolation - All energy isolating devices controlling the energy to the machinery or equipment must be located and locked or tagged out.

STEP 5:
Release of Stored Energy - All potentially hazardous stored energy (hydraulic, pneumatic, electrical, or pressure lines) must be relieved, disconnected, bled off, or otherwise rendered safe and locked or tagged out.

STEP 6:
Verification of de-energization - After ensuring that no personnel are exposed, and having checked on the disconnection of energy sources, the normal operating control (on/off button, switch, or valve) will be operated to make certain that the machinery or equipment will not operate. Return operating control to off position after test.

STEP 7:
Control Center Notification – Contact the appropriate control center once the equipment has been successfully de-energized and the plant status board has been updated with the outage.

REMOVAL OF LOCKOUT/TAGOUT DEVICES

After completing the servicing or maintenance on the machinery or equipment the machinery or equipment must be placed back in service and the Lockout/Tagout devices removed.

Requirements
Lockout/Tagout devices may only be removed by the employee who applied the device. All reasonable effort to contact the authorized employee who placed the Lockout/Tagout must be made.

Exceptions

The following exceptions are recognized:

Employee Not Available
If the original employee is not available to remove the device may be removed by the employee's supervisor or his or her designee, after an evaluation of the condition(s) is made. The supervisor is responsible for notifying the Safety Officer of device removal. This evaluation must consist of the procedures outlined in Section 6.3 of this program.

Craft Locks
A supervisor may authorize an employee tasked with completing work to remove a craft lock. (Provided the removal steps are observed.)

Steps for Removing a Lockout/Tagout Device

This procedure must be completed in the following sequential order:

STEP 1:
Inspection of Work Area - The work area must be inspected to ensure that tools or other items have been removed from the machinery or equipment. Any guards removed or lines disconnected must be reattached at this time.

STEP 2:
Accounting for Personnel - The work area must be checked to ensure that all employees have been safely positioned or removed.

STEP 3:
Removal of Devices - After ensuring that the work area is clear and safe, the Lockout/Tagout device(s) may be removed.

Removing Device Placed by Another Person

When a personal Lockout/Tagout device is removed by a person other than the employee who placed it, the following steps must be taken:

STEP 1:
The absent person's supervisor must be notified.

STEP 2:
The supervisor must complete the Absent Person's Lock Removal Form and provide a copy to the Department Safety Specialist.

STEP 3:
The employee who placed the device must be notified that the device has been removed before work resumes at that location or equipment is brought back into service.

GROUP LOCKOUT/TAGOUT

When servicing or maintenance of machinery or equipment is performed by a crew or other group, they must utilize the procedures outlined below in 7.1, in addition to the procedures outlined in Sections 4 and 5 of this program.

Requirements

1. **Personal Lockout/Tagout**
   Each authorized employee within the group performing the servicing or maintenance work must affix a personal Lockout/Tagout device to the group Lockout/Tagout device.

2. **Multiple Lockout/Tagout Device**
   When an energy isolating device cannot accept multiple locks or tags, a multiple Lockout/Tagout device may be used. Other acceptable methods include a single lock with the key being placed in a lock box which allows multiple locks to secure it.

3. **Craft Locks**
   The intended use of the craft lock is never to take the place of the personal lock while staff is working on the equipment. In the event the equipment must remain out of service at end of a shift, before the personal lock is removed a craft lock may be applied by a qualified person with the tag providing all necessary contact information.

LOCKOUT/TAGOUT DURING SHIFT CHANGES, OVERTIME, AND ON-CALL

Requirements

1. **Transfer of Device**
   In those instances where shift changes occur, there must be an orderly transfer of Lockout/Tagout devices between the off-going and on-coming employees.

2. **Removing Lockout/Tagout Device**
   Employees who report to work for overtime or on-call response and confront a Lockout/Tagout device which prohibits them from taking appropriate action on machinery or equipment must make all reasonable attempts to contact the authorized employee who placed the lock or tag before removing it.

3. **Employee Not Available**
   In the event that this employee is unavailable to be contacted, the overtime or on-call employee may remove the Lockout/Tagout device after performing the following steps.

   STEP 1:
   Contact Supervisor - The employee must contact his or her immediate supervisor or supervisor's designee (the appropriate supervisor may be the supervisor of the employee who placed the Lockout/Tagout device) to obtain permission to remove the Lockout/Tagout device. Supervisor is responsible for completing the Absent Person's Lock Removal Form and notifying the Safety Officer of device removal.

   STEP 2:
   Meet Safety Precautions - The supervisor must receive notification from the employee that the employee has taken the safety precautions outlined in Section in this document before he or she grants permission to remove the Lockout/Tagout device.

OUTSIDE CONTRACTORS

Whenever outside servicing personnel (contractors) are to be engaged in activities covered by the scope of this program, the on-site employer (City of Sacramento) lockout or tagout procedures shall be followed at minimum.

EMPLOYEE TRAINING AND CERTIFICATION

All affected and authorized employees who operate, use or perform servicing or maintenance on machinery or equipment where the unexpected energizing, start-up, or release of stored energy could cause injury or equipment damage, must receive initial Lockout/Tagout Authorized training and follow up refresher training every year thereafter which conveys the knowledge and understanding of the procedures contained within this program. Other City employees will have basic Lockout/Tagout training as required.

Requirements

1. All employee training must be documented. Documentation will include a brief description of the training or sample content, the employee's name, signature, and date. Each City Department/Division will be responsible for identifying responsible employees required to receive this training and the maintenance of training records.

Definitions
(Attachment A)

Affected Employee
An employee whose job requires him or her to operate or use machinery or equipment on which servicing, or maintenance is being performed under Lockout/Tagout, or whose job requires him or her to work in an area in which such servicing or maintenance is being performed.

Authorized Employee
A qualified person who implements a Lockout/Tagout procedure on machinery or equipment to perform service or maintenance on that machinery or equipment. An affected employee becomes an authorized employee when that employee's duties include servicing or maintenance.

Capable of Being Locked Out
An energy isolating device designed with a hasp or other attachment or integral part to which, or through which, a lock can be affixed, or has a locking mechanism built into it.

Craft Lock
One or more padlocks will be issued to each qualified craftsperson. Each qualified employee in their craft will be issued a craft specific key. Craft locks may be used only for lockout purposes under certain conditions. The intended use of the craft lock is never to take the place of the personal lock while staff is working on the equipment. Locks will be identified by color as per craft. Only qualified crafts personnel may apply and remove the lock, and the key may never be given to a non-qualified person.

Energized
Connected to an energy source or containing residual or stored energy.

Energy Isolating Device
A mechanical device that physically prevents the transmission or release of energy. These include but are not limited to: a manually operated circuit breaker, a disconnect switch, a slide gate, a slip blind, a line valve, a block, or any other similar device used to block or isolate energy. Push buttons, selector switches, or other control circuit type devices are not considered energy isolating devices.

Energy Source
Any source of electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or other energy.

Hot Tap
A procedure used in the repair, maintenance, or servicing activities which involves the use of tapping saddles or sleeves which allow drilling of an existing pipeline under pressure to install connections. A hot tap is commonly used to replace or add sections of pipeline without interruption of service.

Lockout
The placement of a lockout device on an energy isolating device in accordance with an established procedure which ensures that the energy isolating device and equipment being controlled cannot be operated until the lockout device is removed.

Lockout Device
A device that utilizes a positive means such as a lock (key or combination), blank flange, or bolted slip blind to hold an energy isolating device in a safe position and prevent the energizing of machinery or equipment.

Normal Production Operations
The utilization of machinery or equipment to perform its intended production function.

Personal Lock
One or more padlocks will be issued to each authorized employee. Each employee will have an individual key. Only one key per lock shall be issued. These locks may be used only for lockout purposes. Locks will be identified by employee number assigned to each employee and/or by the use of a nametag. Only the authorized person may apply and remove the lock, and the key may never be given to another person. A second or master key for each lock will be issued to designated supervisors to enable them to open and remove

Qualified Person
A trained employee having the knowledge and skills so as to be familiar with the construction and operation of the machinery or equipment and the hazards involved.

Servicing and/or Maintenance
Workplace activities such as constructing, installing, setting up, adjusting, inspecting, or modifying machinery or equipment. These activities include lubrication, cleaning, un-jamming, or adjusting machinery or equipment where the employee may be exposed to the unexpected energization, start-up, or release of energy from machinery or equipment.

Setting Up
Any work performed to prepare machinery or equipment to perform its normal production operation.

Tagout
The placement of a tag out device on an energy isolating device in accordance with established procedure to indicate that the energy isolating device and equipment being controlled may not be operated until the tagout device is removed.

Tagout Device
A prominent warning device such as a tag and means of attachment, which can be securely fastened to an energy isolating device to indicate that the energy isolating device and controlled equipment may not be operated until the tagout device is removed.

Absent Persons Lock Removal Form
(Attachment B)

Absent Persons Lock Removal Form
For assistance with this form contact your supervisor/manager, your EH&S Specialist or the Risk Management Office: 808-5278.

1. General Information

Requestor's Name:	Requestor's Phone Number:

2. Equipment Information

Equipment Name:	Means of Isolation:
Equipment: Location:	Job Number:
Reason for Lock out:	

3. Absent Person/Lock Owners Information

Absent Person's Name:	Reason for Removal:
Absent Person's Phone Number:	

3.1.1 Absent Subcontractor Locks ONLY ☐ Not A Subcontractor

Subcontractor Company:	Is their LOTO Plan on file with the department? Yes ☐ No ☐
Does the Subcontractors LOTO Plan contain any specific requirements for Lock removal? Yes ☐ No ☐	If Yes, list below:

4. Attempts to contact Absent Persons log

Date/Time:	Phone Number Used	Made contact?
		☐Yes ☐No ☐Left Voicemail
		☐Yes ☐No ☐Left Voicemail
		☐Yes ☐No ☐Left Voicemail
		☐Yes ☐No ☐Left Voicemail

5. Worksite information

Is the Absent person expected to return to work? Yes ☐ If so, when? _____ No ☐
What is the status of the equipment? • Equipment needs additional repair ☐ • Equipment is safe to operate ☐
Was the Absent person informed that their personal lock was to be cut off? Yes ☐ No ☐

6. Checklist to be completed prior to authorizing the removal of the absent person's lock

Absent person has been verified absent from the site and is unavailable to return Yes ☐	Absent person and their supervisor have been notified Yes ☐
Equipment has been verified safe to energize Yes ☐	Specific Subcontractor requirements (3.1) have been fulfilled, if applicable Yes ☐ N/A ☐

Section 6 must be completed prior to authorization in section 7

7. Authorization to remove absent person's lock

Supervisor Name	Signature	Date
Manager Name	Signature	Date
Requestors Name	Signature	Date

8. Return to work

Before the absent person returns to any work duty their supervisor must ensure that they person is presented with the removed lock and is informed of the reasons for the removal.		
Absent Person's Name	Signature	Date
Supervisor Name	Signature	Date

One Copy of this form is maintained by the department.
One Copy of this form is to be sent to the safety specialist in Risk Management.