



THE MODEL CITY
CITY OF COMMERCE



**LOCKOUT TAGOUT
PLAN**



CITY OF COMMERCE
LOCKOUT TAGOUT PLAN
EQUIPMENT ISOLATION

1.0 PURPOSE

1. To establish a procedure for the identification and isolation of all energy sources where the unexpected movement or contact with an energy source could injure an employee.

2.0 SCOPE and DEFINITIONS

1. This procedure applies to all City of COMMERCE activities such as maintenance, preventative maintenance or equipment installation where the unexpected release of energy could result in an employee injury. This procedure will also apply to all contract personnel and contractors.
2. This procedure DOES NOT apply to minor tool changes (such as a drill bit change) or work activities on cord and plug equipment where the employee has unplugged the equipment and maintains control of the plug end.
3. "**Authorized employee**"- one who locks or implements a tagout system procedure on machines or equipment to perform service or maintenance on that machine or equipment.
4. "**Affected employee**"- one whose job requires using a machine or equipment on which service or maintenance is being performed under lockout / tagout, or whose job requires working in an area in which such service or maintenance is being performed.
5. "**Lockout**" - is the placement of a padlock with a tag used to hold an energy control point, be it a switch (electrical), lever (mechanical), or valve handle (hydraulic/pneumatic), in the "off" position which makes it impossible to operate.
6. "**Tagout**" - is a written warning not to operate a specific switch, lever or valve that shall be completed and applied to the energy control point, hasp or padlock by each lockout employee.

3.0 RESPONSIBILITIES

1. Each Department Head is responsible for executing, enforcing and performance of this procedure to include:
 - A. Ensuring employees are instructed as to the significance of the Lockout / Tagout procedure.
 - B. Ensuring that each type of equipment (i.e. HVAC system, pumps or valves) has a written energy control procedure identifying the specific energy sources for that equipment, all isolating locations for the equipment and special shut down / start-up or testing procedures to be used.
 - C. Ensuring that energy isolation points are identified and that these points will accept a lockout device.
2. The Department Safety Representative or other designated person shall:
 - A. Conduct a quarterly survey documenting employee compliance with the lockout / tagout procedure. The survey will be documented on the Lockout / Tagout Form.
 - B. Ensure that each authorized employee has an adequate supply of locks, tags, nylon cable ties, hasps and other devices to properly isolate each piece of equipment.
3. Employees shall comply with all aspects of this procedure.

4.0 APPLICATION

1. This procedure covers the servicing and maintenance of machines and equipment where the unexpected energization, start-up or release of energy could cause injury to employees.
2. This procedure applies to the control of energy during servicing, set-up and or normal maintenance of machines and equipment if an employee is required to remove or bypass a guard or other safety device, or is required to place any part of his /her body into an area on a machine or piece of equipment where work is being performed upon the point of operation, or when an associated danger zone exists during a machine operating cycle.
3. Locking out the energy control device is the preferred method. If the energy control devices cannot be locked out, a tag out shall be utilized. Tags shall also be applied to capacitors that have been discharged, computer terminals where valves are shut by computer control and the valve cannot be physically isolated, block points where the removal of a pin or other device would allow movement of the equipment and bleed points on hydraulic / pneumatic / steam systems.
4. Water distribution / transmission valves that have been closed to facilitate the repair of the water system shall have a red four by four or equivalent installed

in the valve box to prevent the unexpected operation of the valve. The four by four will be tagged by the supervisor in charge of the repair. Note: Water valves are typically located in the street and "locking out" is not feasible.

5. Any vehicular equipment that must be raised for repair such as forklift forks, backhoe arms or loader buckets will be blocked or pinned in such a way as to prevent unexpected operation. These shall be tagged.
6. Exceptions:
 - A. Minor tool changes and adjustments which take place during normal production operations are not covered if they are routine, repetitive, and integral to the use of equipment for production, provided that the work is performed using alternate measures, which provide effective protection.
 - B. Work on cord-and-plug connected electrical equipment is not covered when the employee performing the service or maintenance controls energization by unplugging the equipment from the energy source and maintains control of the plug end.
 - C. Hot tap operations are not covered when involving transmission systems from substances such as gas, steam, water, or petroleum where such operations involve pressurized pipelines.

5.0 TRAINING

1. Both "authorized" and "affected" employees will be included in lockout / tagout training.
2. Training shall include the purpose and function of a lockout / tagout program, recognition of potential hazards and application of lockout / tagout procedures.
3. Training documentation will identify each employee attending, the subject matter presented, listing of any audio-visual aids, training leader, and date training conducted. Such records will be maintained for the time specified in the Injury and Illness Prevention Program.

6.0 PROCEDURE

1. Lockout / Tagout Individual
 - A. Notify all affected employees that a lockout or tagout will be utilized and the reason therefore.
 - B. If the equipment or machinery is operating, shut it down by normal shutdown procedures.
 - C. Operate the switch, valve or other energy-isolating device so that the equipment or machinery is isolated from its energy source. Stored energy (i.e.

springs, elevated machine members, rotating fly wheels, hydraulic systems, and air, gas, steam or water pressure, etc.) must be dissipated or restrained by methods such as repositioning, blocking, bleeding down, etc. Capacitors shall be discharged per the manufacturer procedures.

- D. Apply a lock and tag to each isolation point that will accept one. Isolation points that will not accept a lock and/or block points, blinds, bleed points and capacitors shall be tagged only.
 - E. After ensuring that no personnel are exposed and that the energy sources are isolated, operate the controls to make certain the equipment or machinery will not operate. Return operating controls to the neutral or off position after the test. Open bleeder locations to remove any residual pressure in hydraulic / pneumatic / steam systems. Check electrical circuits with the appropriate test device to ensure no current remains.
 - F. The equipment or machinery is now locked or tagged out.
2. Restoring equipment or machinery to normal operations
- A. After servicing and/or maintenance is complete, check the area around the equipment or machinery to ensure that no one is exposed.
 - B. Remove all tools, reinstall guards and remove all lockout / tagout devices on the energy isolating device(s).
 - C. Restart the machine or equipment per manufacturer procedures.
3. Servicing or maintenance involving more than one person
- A. Each person is to place his / her personal lockout/tagout device on the energy isolating device(s).
 - B. When the energy-isolating device cannot accept multiple locks or tags, a multiple lockout or tagout device (hasp) shall be used.
 - C. As each person no longer needs to maintain lockout / tagout protection that person shall remove his / her lock or tag. The last employee shall remove the hasp and be responsible for restarting the machine or equipment. If the equipment is not safe to operate, the last person shall leave his / her locks / tags in place and attach a written notice to the tags stating why the equipment is not ready to operate.

7.0 OUTSIDE PERSONNEL (SUB-CONTRACTORS)

- 1. Outside personnel (sub-contractors) who service or repair city equipment or machinery must comply with and follow this procedure, excepting that a city employee may test start the machine or equipment.

8.0 PADLOCKS

1. Padlocks will be used to hold an energy control point, be it a switch (electrical), lever (mechanical), or valve handle (hydraulic/pneumatic), in the "off" position, which makes it impossible to operate.
2. Authorized employees shall be issued their own padlocks for lockout use. The city will replace padlocks or keys that are lost, but an employee may be charged for them if the loss becomes excessive.
3. Padlocks shall be sufficient size and strength to adequately fit the energy control point being locked out.
4. Lockout locks shall not be used as a security lock on lockers, toolboxes, etc.

9.0 HASPS

1. Hasps shall be used when several employees must work on the same equipment and/or machine. Each employee must attach his / her own lock or tag while work is being performed, removing the lock or tag when his / her work is completed.
2. Hasps shall be red in color and made of aluminum or heavy-duty steel. Hasps shall be capable of accepting a minimum of six padlocks.

10.0 TAGOUTS

1. When an energy isolation point will not accept a lockout device, the tagout shall be attached to the energy control device(s).
2. Tagouts shall warn other workers not to attempt to operate the switch, valve, etc. due to the potential of hazardous energy release. Tagouts shall indicate the identity of the employee applying the tagout.
3. Tagouts shall be securely fastened to the energy control point by means of a single use locking nylon closure able to withstand the surrounding environment.

11.0 LOCKS / TAGS LEFT IN PLACE

1. Padlocks or tags, which may have been inadvertently left in place, shall only be unlocked or otherwise removed by following this procedure. There are no exceptions.
 - A. Every attempt shall be made to contact the employee at home, and have the employee return to the facility and remove his / her padlock.

- B. A documented investigation has been conducted and this investigation verifies that the machine or equipment repairs have been completed and no safety reason exists for having the machine or equipment locked out.
2. Employees who "forget" to remove their lockout or tagout devices from a machine or piece of equipment may be subject to disciplinary action.

CITY OF COMMERCE



LOCKOUT / TAGOUT SURVEY

SURVEY DATE: _____

MACHINE OR EQUIPMENT LOCKED OR TAGGED OUT: _____

EMPLOYEES INVOLVED WITH SERVICING, SET-UP OR MAINTENANCE

NAMES

_____	_____
_____	_____
_____	_____

COMPLIANCE WITH LOCKOUT/TAGOUT PROCEDURES: YES ___ NO ___

IF NO, EXPLAIN: _____

CORRECTIVE ACTION TAKEN: _____

SIGNATURE OF PERSON PERFORMING AUDIT

CITY OF COMMERCE

LOCKOUT / TAGOUT REMOVAL INVESTIGATION

DATE: _____

MACHINE OR EQUIPMENT LOCKED OR TAGGED OUT: _____

EMPLOYEE WHO ISOLATED THE EQUIPMENT: _____

REASON EQUIPMENT ISOLATED: _____

ISOLATION POINTS: _____

Note: If any question is answered no the lock / tag may not be removed at this time.

HAVE YOU CONDUCTED AN INSPECTION OF THE EQUIPMENT: YES ___ NO ___

HAS THE EQUIPMENT BEEN FULLY REPAIRED: YES ___ NO ___

IS THE EQUIPMENT READY TO OPERATE: YES ___ NO ___

HAVE ALL GUARDS BEEN REINSTALLED: YES ___ NO ___

HAVE YOU ATTEMPTED TO CONTACT THE EMPLOYEE WHO INSTALLED THE LOCK / TAG:
YES ___ NO ___

IF THE EMPLOYEE WAS CONTACTED DID THEY AUTHORIZE THE REMOVAL OF THEIR LOCK:
YES ___ NO ___

NAME / SIGNATURE OF PERSON INVESTIGATING / AUTHORIZING REMOVAL

Note: When completed this form, any work authorizations, locks or tags must be given to the Department Manager.

1. EQUIPMENT IDENTIFICATION:

Description: _____ Location: _____

Manufacturer: _____

ID # _____ Date: _____

List other equipment where the same procedure would apply:

2. ENERGY SOURCES:

Identify all energy sources

____ Electrical ____ Hydraulic ____ Pneumatic ____ Water

____ Steam ____ Natural Gas ____ Condensate ____ Other (list)

____ Stored (List all stored energy sources such as springs, gravity, etc.)

3. ENERGY SOURCE LOCATION:

Energy Source	Lockable (Yes/No)	Location

4. SHUTDOWN PROCEDURE:

List in order the steps necessary to shut down and isolate the equipment.

5. ZERO ENERGY CHECK:

List all procedures to verify the equipment is at a zero energy state. Specify any special testing methods, or drain / bleeder locations. Return all operating controls to neutral or off after the test.

6. RESTORING EQUIPMENT TO SERVICE:

List in order the steps necessary to reinstall guards, remove isolation devices and restart the equipment.

CITY OF COMMERCE Lockout Tagout Program

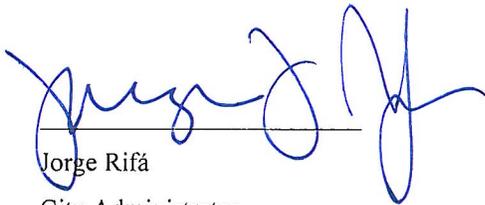


Michael A. Casalou

Human Resources Director

9-23-15

Date



Jorge Rifá

City Administrator

05-24/2015

Date

