

# Santa Clarita Community College District



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# LOCKOUT/TAGOUT PROGRAM

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Revised

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## **PURPOSE**

The procedures identified in this plan establish the minimum requirements for the lockout of energy whenever maintenance or servicing is done on machines or equipment. The procedures shall be used to ensure machines or equipment are stopped, isolated from all potentially hazardous energy sources and locked out before employees perform any servicing or maintenance where the unexpected energization or start-up of the machine(s) or equipment or release of stored energy could cause injury.

## **COMPLIANCE**

All employees are required to comply with the restrictions and limitations imposed upon them during the use of lockout. Authorized employees are required to perform the lockout in accordance with the procedures identified in this plan. All employees, upon observing machine(s) or equipment, which are locked out for the performance of servicing or maintenance, shall not attempt to start, energize or use the machine(s) or equipment.

## **Definitions**

### **Affected employee**

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

### **Authorized employee**

A person who locks or implements a tagout system procedure on machines or equipment to perform the servicing or maintenance on that machine or equipment. An authorized employee and an affected employee may be the same person when the person who operates the equipment also services/maintains the equipment.

### **Capable of being locked out**

An energy-isolating device will be considered to be capable of being locked out either if it is designed with a hasp or other attachment or integral part to which or through which a lock can be affixed, or if it has a locking mechanism build into it. Other energy isolating devices will also be considered to be capable of being locked out, if lock out can be achieved without the need to dismantle, rebuild, or replace the energy-isolating device, or permanently alter its energy control capability.

### **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, a manually operated switch 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 slide gate, a slip blind, a line valve, a block, and any similar device used to block or isolate energy. The term does not include a push button, selector switch, and other control circuit type devices. (Example - Disconnect on garbage disposal, or breaker in panel box.)

### **Energy source**

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

### **Lockouts**

The placement of a lock out 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 lock out device is removed.

### **Lockout device**

A device that utilizes a positive means such as a lock to hold an energy isolating device in a safe position and prevent the energizing of a machine or equipment.

### **Servicing and/or maintenance**

Work place activities such as constructing, installing, setting up, adjusting, inspecting, modifying, and maintaining and/or servicing machines or equipment. These activities include lubricating, cleaning, or unjamming of machines or equipment, and making adjustments or attachment changes where the employee may be exposed to unexpected energization or startup of the equipment or release of

hazardous energy. In the School, this applies to the cleaning of the garbage disposal, unjamming of the garbage disposal and removal and changing of attachments on the mixers (which are wired direct).

### **Setting up**

Any work performed to prepare a machine or equipment to perform its normal production operation. (i.e. changing mixer attachments)

### **Tagout**

The placement of a tag out 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 "tag out" device is removed. This is to be used only when the energy-isolating device cannot physically be locked out. However, tags should always be used with locks to provide identification of the authorized person utilizing the lockout/tagout procedure.

### **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.

### **Group lockout/tagout**

Group lockout/tagout is performed when more than one authorized employee is performing servicing / maintenance. Each authorized employee must apply his/her own lock and tag and must be the only one capable of removing his/her lock and tag. A multi-hasps lockout/tagout device used.

## SECTION I - ENERGY CONTROL PROCEDURES

Energy control procedures consist of:

- Lockout/Tagout
- Annual review of the Lockout/Tagout procedure
- Employee Training

### **LOCKOUT/TAGOUT:**

If an energy-isolating device is not capable of being locked out, a tagout system shall be implemented.

If an energy-isolating device is capable of being locked out, then the following procedures will apply prior to any maintenance or servicing:

- Each employee working on equipment places his/her own lock and tag on the lockout mechanism and maintains key in a visible position on their person. (This can be on a belt loop, key ring, or other visible location but not in an area which would interfere with job safety).
- Facilities manager or designee will keep a duplicate key for each lock in the lockout tagout system in his or her office to open any lock should that person not be on campus when the equipment is ready to be activated. All reasonable attempts will be made to contact the employee before removing the lock. Documentation will be maintained which will include:
  - Date and Time;
  - Name of employee contacted;
  - Types of attempt made (cell, home, email, etc.);
  - Name of person who attempted to make contact to reach the employee.
- Each employee is responsible for removing his/her lock upon completion of their assigned function.
- If equipment operations continue across shifts, then the equipment lockout remains in place. Others working on equipment continue placing their lock in addition to the locks present. At the end of his or her shift each person should remove their lock. The last person must wait for at least one person from the next shift to place their lock on the equipment before they remove the last lock should the equipment still need to be locked out. Another way to do this is to have an Administrator also place a lock on the equipment so that there is always at least one lock in place until the equipment is ready to be energized.

## **PERIODIC INSPECTIONS:**

To assure the energy control procedures remain viable and effective, and to assure the procedures are being followed, the District will provide for an annual inspection of the program and procedures. The inspection will be carried out by Facilities Manager or Designee or other authorized District employee who does not actually utilize the energy control procedure.

The periodic inspection will be conducted in a manner to identify and correct any variations or inadequacies identified. The inspection will include a review of procedures and a review with each authorized employee of his/her responsibilities under energy control procedures.



## **EMPLOYEE TRAINING:**

Each employee authorized to work on equipment for set-up, maintenance, installation or other reason, shall receive training on lockout and tagout (energy control) procedures. Training will consist of the following:

- Purpose and use of energy control procedures
- Review of District energy control procedures
- Recognition of applicable hazardous energy sources
- Identification of types and magnitude of energy sources in the workplace
- Methods & means of energy isolation and control
- Limitations of tagout
- Emergency information

All training will be documented in accordance with the District's Injury & Illness Prevention Program.

## SECTION II - APPLICATION OF CONTROL

The identified procedures for the application of energy control shall include the following elements and actions to be done in the following sequence:

1. **Preparation for shutdown.** Before an authorized employee shuts down equipment, the authorized employee shall 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.
2. **Notification of affected employees.** The authorized employee will notify the site administrator and other "affected" employees of the intention to lockout and identify the equipment to be locked and/or tagged.
3. **Machine or equipment shutdown.** Machine(s) or equipment shall be shut down or turned off using established procedures for the given machine or equipment.
4. **Machine or equipment isolation.** All energy isolating devices, which are needed to control the energy to 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.
5. **Lockout or tagout device application.**
  - Lockout and/or tagout devices shall be applied only by authorized employees.
  - Lockout devices, where used, shall be applied in a manner which holds the energy isolating device in a "safe" or "off" position.
  - Tagout devices, where used solely, shall be applied in a manner which clearly indicates that the operation or movement of energy isolating devices from the "safe" or "off" position is prohibited.
6. **Stored energy.** Following the application of energy control devices to energy isolating devices, all potentially hazardous stored or residual energy shall be relieved, disconnected, restrained or otherwise rendered safe.
7. **Verification of isolation.** The authorized employee shall verify that isolation and de-energization of the intended equipment has been accomplished prior to commencing any work on the equipment.

### **SECTION III - RELEASE FROM LOCKOUT OR TAGOUT**

Before lockout or tagout devices are removed and energy restored to the isolated machinery or equipment, the following procedures shall be followed:

1. The authorized employee shall inspect the authorized work to ensure that nonessential items have been removed and that the machine or equipment is operationally intact, assembled properly and is safe to operate for its intended use.
2. Check the work area to ensure all employees have been safely positioned or removed.
3. Each lockout and/or tagout device shall be removed from each energy isolating device only by the employee who applied the device. A second authorized person should review the check list for group lockout/tagout equipment to make sure that all the required signatures are there and everyone is aware that the equipment is about to be energized.
4. Affected employees shall be notified that the lockout or tagout device(s) have been removed before the machine or equipment is to be started.
5. Start Equipment.

## **SECTION IV - ADDITIONAL REQUIREMENTS**

### **SPECIAL APPLICATIONS:**

On occasion, a new and/or special application may arise and not be covered in procedures by this policy. If this occurs, the Facilities Manager or Designee will determine the safest method for performing the task and facilitating lockout/tagout.

### **TESTING OR POSITIONING OF MACHINES OR EQUIPMENT:**

If energy control devices must be temporarily removed for testing or positioning of the machinery or equipment, the following shall apply:

1. Clear the machine or equipment of tools and materials
2. Remove employees from the machine or equipment area
3. Remove lockout or tagout devices as specified in Section III of this plan
4. Energize and proceed with the testing or positioning
5. De-energize all systems and reapply energy control measures in accordance with the provisions of this plan
6. Continue maintenance or servicing as scheduled

### **SHIFT OR PERSONNEL CHANGES:**

Facilities Manager or Designee shall be responsible for ensuring the continuity of protection and an orderly transfer of energy control devices between off-going and incoming employees.

### **OUTSIDE PERSONNEL:**

When outside service personnel are engaged in activities covered by the scope of this program, the outside employer shall communicate with the Facilities Manager or Designee for an exchange of information regarding each other's lockout or tagout procedures.

Facilities Manager or Designee will be responsible for ensuring all District employees understand and comply with the restrictions of the outside service provider's energy control program.

## **PROCEDURES**

The ensuing items are to be followed to ensure both compliance with the OSHA Control of Hazardous Energy Standard and the safety of our employees.

### **Preparation for Lockout or Tagout**

Employees who are required to utilize the lockout/tagout procedure (see Attachment A) must be knowledgeable of the different energy sources and the proper sequence of shutting off or disconnecting energy means. The four types of energy sources are:

1. electrical (most common form);
2. hydraulic or pneumatic;
3. fluids and gases; and
4. mechanical (including gravity).

More than one energy source may be utilized on some equipment and the proper procedure must be followed in order to identify energy sources and lockout/tagout accordingly. See Attachment F for specific procedure format.

### **Electrical**

1. Shut off power at machine and disconnect.
2. Disconnecting means must be locked or tagged.
3. Press start button to see that correct systems are locked out.
4. All controls must be returned to their safest position.
5. Points to remember:
  - If a machine or piece of equipment contains batteries or capacitors which presents a hazard to the person working on the equipment, then those batteries or capacitors should be removed, isolated or discharged.
  - Possible disconnecting means include the power cord, power panels (look for primary and secondary voltage), breakers, the operator's station, motor circuit, relays, limit switches, and electrical interlocks.
  - Some equipment may have a motor isolating shut-off and a control isolating shut-off.
  - If the electrical energy is disconnected by simply unplugging the power cord, the cord must be kept under the control of the authorized employee or the plug end of the cord must be locked out or tagged out.

### **Hydraulic/Pneumatic**

1. Shut off all energy sources (pumps and compressors). If the pumps and compressors supply energy to more than one piece of equipment, lockout or tagout the valve supplying energy to the piece of equipment being serviced.

2. Stored pressure from hydraulic/pneumatic lines shall be drained/bled when release of stored energy could cause injury to employees.
3. Make sure controls are returned to their safest position (off, stop, standby, inch, jog, etc.).

### **Fluids and Gases**

1. Identify the type of fluid or gas and the necessary personal protective equipment.
2. Close valves to prevent flow, and lockout/tagout.
3. Determine the isolating device, then close and lockout/tagout.
4. Drain and bleed lines to zero energy state.
5. Some systems may have electrically controlled valves. If so, they must be shut off and locked/tagged out.
6. Check for zero energy state at the equipment.

### **Mechanical Energy**

Mechanical energy includes gravity activation, energy stored in springs, etc.

1. Block out or use die ram safety chain.
2. Lockout or tagout safety device.
3. Shut off, lockout or tagout electrical system.
4. Check for zero energy state.
5. Return controls to safest position.

### **Release from Lockout/Tagout**

1. **Inspection:** Make certain the work is completed and inventory the tools and equipment that were used.
2. **Clean-up:** Remove all towels, rags, work-aids, etc.
3. **Replace guards:** Replace all guards possible. Sometimes a particular guard may have to be left off until the start sequence is over due to possible adjustments. However, all other guards should be put back into place.
4. **Check controls:** All controls should be in their safest position.
5. **Review/Double check:** The work area shall be checked to ensure that all employees have been safely positioned or removed and notified that the lockout/tagout devices are being removed.
6. **Remove locks/tags:** Remove only your lock or tag.

**APPENDIX A**  
**CALIFORNIA CODE OF REGULATIONS TITLE 8,**  
**SECTION 3314**

<http://www.dir.ca.gov/Title8/3314.html>

## **Appendix B**

### **List of Authorized Personnel For Lockout/Tagout Procedures**

#### JOB TITLE

Maintenance Worker III  
Maintenance Facilities – Lead  
Telecommunications Engineer