1.0 PURPOSE

The purpose of this program is to establish minimum safety requirements for the lockout and tagout of hazardous energy sources and the verification of energy isolation through the use of isolating devices and techniques during service or maintenance on equipment.

2.0 SCOPE

The provisions of the Lockout/Tagout Program (LOTO) shall apply to all personnel at Sacramento State who may be exposed to hazardous energy while performing any servicing, maintenance, or modification activity.

The lockout/tagout and verification procedures identified in this document must be strictly followed when it is necessary to work on any equipment that generates, holds, or may release, any form of hazardous energy while the equipment is shut down

Exceptions:

a) Work on cord and plug connected electrical equipment, in which:
   - There is a single energy source, and
   - All of the hazardous energy is controlled by unplugging the equipment, and
   - The plug remains under the continuous positive control of the worker performing the servicing, maintenance, or modification.

b) Operations on energized equipment (e.g., measuring, troubleshooting, calibration), where continuity of service is essential to safety or shutdown of the system cannot be reasonably accomplished. Supervisor approval is always required for such operations, and documented safety procedures that provide an equivalent level of safety must be established and followed.

c) Minor tool changes, adjustments, and other minor servicing activities that take place during normal operations, provided that (1) such activities are routine, repetitive, and integral to the use of the equipment and that (2) the work is performed using alternative measures that provide effective personnel protection.

3.0 RESPONSIBILITIES

The following persons/entities have responsibilities as delineated below for implementation of this document:

3.1 Risk Management, Office of Environmental Health and Safety

a) Develop and implement an education and training program designed to instruct employees in safe work practices related to preventing injuries and illnesses from electrical hazards.
b) Maintain, administer, and revise the LOTO program as needed.
c) Provide consultation to Deans, Directors, Chairpersons, coordinators, Principal Investigators, managers, and supervisors regarding program compliance.
d) Periodically audit LOTO compliance.

3.2 Vice Presidents and Program Center Administrators, Department Heads, Chairs and Managers

a) Develop and maintain written departmental policies as necessary and ensure that each supervisor adheres to adopted procedures.
b) Provide necessary safety equipment, including appropriate locks and tags, to employees, at no cost to the employee.

3.3 Supervisors & Lead Personnel

a) Develop workplace procedures to ensure effective compliance with this and other Safety Procedures.
b) Prohibit employees from working on equipment requiring LOTO until the worker is trained in, and authorized to perform, LOTO.
c) Instruct employees in the recognition and avoidance of unsafe conditions. Ensure that newly hired, newly assigned or reassigned employees are properly trained in all safety procedures associated with their new duties.
d) The supervising department shall continually monitor employee performance with regard to compliance with this program and shall correct any deviations or inadequacies observed.

3.4 Employees

a) Read and comply with procedures and guidelines provided by their supervisors.
b) Inform their supervisors of workplace hazards without fear of reprisal.
c) Attend established education and training sessions; understand and comply with all applicable safety requirements. Failure to comply with established safety rules may be reflected in performance evaluations and may lead to disciplinary action consistent with procedures described in respective collective bargaining contracts, where applicable.
d) Ask questions of their supervisors when there is concern about an unknown or potentially hazardous situation.

4.0 LOCKOUT/TAGOUT AND VERIFICATION PROCEDURES

All LOTO operations shall utilize either an equipment–specific written procedure or the General LOTO procedure, as applicable. Regardless of the procedure used, it is important that the following LOTO principles are strictly adhered to:

a) All sources of hazardous energy must be shut off and secured.
b) LOTO must be performed at each identified hazardous energy control point by each Authorized Employee who works on the equipment.
c) Each Authorized Employee must apply their personal LOTO device whenever servicing, maintaining, or modifying machinery or equipment, regardless of the duration of the job or their proximity to the energy-isolating device (e.g., circuit breaker, switch, or valve).
d) Each Authorized Employee must personally witness or verify the absence of hazardous energy, or assure that the verification has been performed.

4.1 Equipment-Specific Written Energy Control Procedure

a) An equipment-specific written energy control procedure must be developed and used whenever equipment or apparatus undergoing servicing, modification, or maintenance:

- Has more than one hazardous energy source, or

- Requires the operation of more than one device to isolate the hazardous energy, or
- Has potential for stored, residual, or accumulated hazardous energy.

4.2 Preparing Equipment-Specific Written Procedures

A written energy-control procedure must be generated by the department, group, or LOTO-Authorized Employee most familiar with the equipment. This procedure must be used by any Authorized Employee who will LOTO the equipment.

4.3 Elements of an Equipment-Specific Written Procedure

The written hazardous energy control procedure must be specific to each piece of equipment or apparatus, and must be inclusive of all energy types it contains. More complex equipment may require a separate procedure for each type of hazardous energy to be controlled, or a separate procedure for each type of maintenance or servicing task expected to take place. The procedure must address all of the following in addition to the requirements of the general procedure:

a) A statement of the intended use of the procedure;
b) The procedural steps for shutting down, isolating, blocking and securing machines or equipment to control hazardous energy;
c) The procedural steps for the placement, removal and transfer of lockout devices and tagout devices and responsibilities; and,
d) The requirements for testing a machine or equipment, to determine and verify the effectiveness of lockout devices, tagout devices and other hazardous energy control devices.

4.4 General LOTO Procedure

Before starting any LOTO procedure, the Authorized Employee(s) performing the work shall physically locate and identify all isolating devices to be sure which switches, valves, or other energy isolating devices apply to the equipment or apparatus to be locked out. Any questionable identification of electrical or other energy sources shall be resolved by the Authorized Employee(s) with their supervisor before proceeding.

4.5 LOTO Procedure Sequence

a) Step 1 – Preparation

- Review the written procedure, if applicable. The authorized employee must determine if an Equipment Specific Written Energy Control Procedure is required for the task. If so, the authorized employee must obtain and follow the equipment-specific written procedure. If a new written procedure must be generated, or an existing procedure needs to be changed or updated, the authorized employee must contact his or her Supervisor.
- Assess energy type and magnitude. The authorized employee must assess the type, magnitude, and hazards of the energy to be controlled.
- Determine methods of energy isolation. The authorized employee must determine the appropriate methods of controlling the hazardous energy. Methods for energy isolation may include such things as circuit breakers, disconnect switches, or valves. Push buttons, selector switches, interlock circuits, and other control-type devices are *not* energy-isolating devices.

b) Step 2 – Notification

- Notify all affected employees. The authorized employee must notify all affected employees of the impending shutdown. These persons must be informed that they are not to disturb the lockout device or attempt to re-start the equipment until they are informed that the lockout has been cleared and it is safe to resume normal operations.

c) Step 3 – Shutdown

- Verify that it is safe to shut down equipment. The authorized employee must verify that it is safe to shut down the equipment.
- Perform normal equipment shutdown. The authorized employee must turn off or shut down the equipment using established methods for that equipment.

d) Step 4 – Isolation and Verification

- Isolate all energy sources. The authorized employee must operate (switch off, valve off, etc.) energy-isolating device(s).
- Verify that the correct energy isolation device has been operated. The authorized employee must take steps to ensure that the means used (disconnect, valve, etc.) for energy isolation correctly correspond to the equipment on which LOTO is being performed.

e) Step 5 – LOTO Device Application

- Lock out energy sources. The lock must be affixed so as to hold the energy-isolating device in an off or safe position that physically prohibits normal operation of the energy-isolating device.
- Write name and date, along with any other relevant information, on the tag and apply with lock or plastic locking tie. If the placement of the tag would compromise safety by obscuring indicator lights or controls, the tag may be located as close as is safely possible to the device, in a position that will be immediately obvious to anyone attempting to operate the device.

f) Step 6 – Additional Measures If Necessary

- Insert physical restraints or disconnect components. Insert blocks or chocks for moving or raised parts, insert blind flanges for pressurized piping, disconnect springs (only if safe to do so), etc., to ensure potential moving parts are physically restrained or disconnected.

- Release stored energy. The authorized employee must completely release or otherwise control any stored energy and block any unexpected motion. The presence of stored energy usually indicates that an Equipment-Specific Written Procedure is required. The equipment must be in a zero energy state.

    - In the case of stored mechanical energy, vent valves, spring releases, blocking devices, or equipment repositioning (as appropriate) must be utilized.
    - In the case of stored electrical energy, approved grounding wands or discharge devices must be used. If there is a possibility of reaccumulating of stored energy to a hazardous level, verification of

isolation (such as leaving the ground wand in place) must be continued until the servicing, maintenance, or modification is completed.

g) Step 7 – Isolation Verification

- Attempt to restart the equipment. The authorized employee must physically attempt to operate the energy-isolating device and attempt to restart the equipment using the normal equipment controls.

- Test equipment for zero-energy state. The authorized employee must test potential energy sources using appropriately rated instruments. Any instrument used to test for voltage, pressure, or temperature must be checked for proper operation both before and after use. If the authorized employee is not qualified to test the energy being isolated, he or she must ensure that the energy is tested by a qualified person.

h) Step 8 – Keeping Devices in Place

- The lock and tag shall remain in place until work on the equipment is complete. In rare circumstances, it may be necessary to temporarily remove LOTO devices before work is 100 percent completed (such as for adjustment or repositioning equipment).

4.6 Restoring Equipment to Service

a) Step 1 – Preparation & Notification
- Notify all Affected Persons that the system is to be returned to service. Ensure all persons remain clear of the equipment point of operation or hazard zone.
- Clear all tools and personnel. The authorized employee must check the work area to ensure that all tools, debris and personnel are at a safe distance from the equipment.
- Replace safety guards. The authorized employee must check the equipment to ensure that any removed guards are reinstalled.

b) Step 2 – Removal Of Additional Devices
- The authorized employee must remove any additional devices applied under LOTO Application, Step 6.
- Remove all safety grounding devices.
- Verify that it is safe to reenergize. The authorized employee must verify that the work for which the LOTO was applied has been completed and that it is safe to reenergize equipment.

c) Step 3 – Removal of All Locks and Tags
- Remove lock(s) and tag(s). Each LOTO device must only be removed by the authorized employee who applied it. If the person who placed the locks and tags is not available, the procedure for in Section 4.8 must be followed.
- Notify all Affected Employees that the lockout condition has been cleared.
- Energize the equipment and restore the equipment to the normal condition.

4.7 Procedures Involving More Than One Person

In the preceding steps, if more than one individual is required to lockout or tagout equipment, each shall place his/her own personal lockout device or tagout device on the energy isolating device(s). When an energy-isolating device cannot accept multiple locks

or tags, a multiple lockout or tagout device (hasp) may be used. If lockout is used a single lock may be used 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 his/her own lock to secure the box or cabinet. As each person no longer needs to maintain his or her lockout protection, that person will remove his/her lock from the box or cabinet (see —Group Lockout/Tagout "Section).

4.8 Removal of Lockout or Tagout Device by Others

Each lockout or tagout device shall be removed from each energy isolating device by the employee who applied the device.

Exception: The supervisor of an employee may remove a lockout or tagout device provided a documented procedure is followed. At a minimum, this procedure shall include, but not be limited to, these actions by the supervisor:

- Verification that the authorized employee who applied the device is not on site;
- Making all reasonable efforts to contact the authorized employee to inform him/her that his/her lockout or tagout device has been removed; and
- Ensuring that the authorized employee has this knowledge before he/she resumes work on the site.

4.9 GROUP LOCKOUT/TAGOUT

Group lockout shall be utilized where complex LOTO operations involve many employees and numerous energy- isolating devices. In such situations the supervising department may designate a primary authorized employee, with the primary responsibility for a set number of employees working under the group LOTO device(s). The primary authorized employee must implement and coordinate the LOTO of hazardous energy sources and verify that the steps taken, in accordance with the specific written energy control procedure, have in fact isolated the machine or equipment effectively from the hazardous energy sources. This must be accomplished before authorized employees participating in the group LOTO affix their personal lockout device to the group LOTO box and before performing servicing/maintenance activities.

In addition to the primary authorized employee, each authorized employee participating in the group LOTO must be informed of their right to verify the effectiveness of the lockout measures. Each authorized employee must be allowed to personally verify that hazardous energy sources have been effectively isolated, if they so choose. An authorized employee, who opts to verify the effectiveness of the isolation measures, must perform this verification after affixing his or her personal lockout device to the lock box and before performing servicing/maintenance activities.

Each authorized employee shall affix a personal lockout or tagout device to the group lockout device, group lockbox, or comparable mechanism before he or she begins work, and shall remove those devices when he or she finishes working on the machine or equipment being serviced or maintained.

4.10 SHIFT OR PERSONNEL CHANGES

Specific procedures shall be utilized during shift or personnel changes to ensure the continuity of lockout or tagout protection. This shall include provision for the orderly transfer of lockout or tagout device protection between outgoing and incoming employees, to minimize exposure to hazards from the unexpected energization or startup of the machine or equipment, or the release of stored energy.

Whenever work is being performed, under group LOTO, outside the normal shift or working hours a primary authorized employee must be present at all times. When changing shifts, the supervising department may, through an orderly transfer, designate a new primary authorized employee. This new primary authorized employee must attach their personal lockout device to the group LOTO box before the previous primary authorized employee removes their lockout device. The primary authorized employee will assume the responsibilities previously described.

4.11 OUTSIDE PERSONNEL (Contractors, etc.)

Whenever outside servicing personnel are to be engaged in activities covered by the scope and application of this procedure, the supervising department and the outside employer shall inform each other of their respective lockout or tagout procedures. The supervising department shall ensure that his/her personnel understand and comply with restrictions and prohibitions of the outside employer's energy control procedures.

5.0 ENFORCEMENT

Failure to follow the University Lockout/Tagout Program can result in life threatening or serious injury situations. Therefore, failing to lockout or tagout or otherwise not follow the Lockout/Tagout procedures may lead to disciplinary action consistent with procedures described in respective collective bargaining contracts, where applicable.

6.0 TRAINING AND COMMUNICATION

6.1 Initial Training

The supervising department shall ensure that employees receive training in the purpose and function of the energy control program and that the knowledge and skills required for the safe application, usage, and removal of energy controls are acquired. Training shall include the following:

- Each authorized employee shall receive training in the recognition of applicable hazardous energy sources, the type and magnitude of the energy available in the workplace, and the methods and means necessary for energy isolation and control.
- Each affected employee shall be instructed in the purpose and use of the energy control program.
- All other employees whose work operations are or may be in an area where energy control procedures may be utilized, shall be instructed about the procedure, and about the prohibition relating to attempts to restart or reenergize machines or equipment which are locked out or tagged out.

6.2 Employee Retraining

Retraining shall be provided for all authorized and affected employees whenever there is a change in their job assignments, a change in machines, equipment or processes that presents a new hazard, or when there is a change in the energy control procedure. Additional retraining shall also be conducted whenever a periodic inspection reveals, or whenever the supervising department has reason to believe, that there are deviations from, or inadequacies in the employees' knowledge or use of the energy control

procedures. The training shall reestablish employee proficiency and introduce new or revised control methods and procedures, as necessary.

6.3 Record Keeping

The supervising department will maintain all Lockout/Tagout records. These records must include:

- Certification that employee training has been accomplished and is being kept up-to-date. The certification shall contain, as a minimum, each employee's name and dates of training and a training summary. A copy of the training record shall be provided to Safety Coordinator, REM. A sample training record form is appended.
- Specific written lockout/tagout procedures for equipment/machines covered by the program (see —WRITTEN ENERGY CONTROL PROCEDURES Section).
- Completed Periodic Inspection of Energy Control Procedures forms for this equipment/machinery conducted annually (see —PERIODIC INSPECTIONS "Section and Appendix D3). Any completed Exchange of Lockout/Tagout forms (see —OUTSIDE PERSONNEL Section and Appendix D4).

6.4 GENERAL PROCEDURES

Energy Isolation
Implementation of lockout or the tagout system shall be performed only by authorized employees.

Notification of Employees
Affected employees shall be notified by the supervising department or authorized employee of the application and removal of lockout devices or tagout devices. Notification shall be given before the controls are applied, and after they are removed from the machine or equipment.

Tagout
Lockout is a more effective means of ensuring the de-energization of equipment and it is the preferred method. However, tagout must be used where the energy control device cannot accept a lock. If the energy isolating device is capable of being locked out, the standard requires that a lockout be used unless the employer can demonstrate that tagout will provide full employee protection, i.e., a level of protection that is equivalent to lockout.
When tagout systems are used, employees shall also be trained in the following:

- Tags are, essentially, warning devices affixed to energy-isolating devices, and do not provide the physical restraint on those devices that is provided by a lock.

7.0 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 lockout or tagout, 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 affected employee's duties also include performing maintenance or service on a machine or equipment, which must be locked, or a tagout system implemented.

Capable of being locked out - An energy-isolating device will be considered to be capable of being locked out if either 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 built into it. Other energy-isolating devices will also be considered to be capable of being locked out if lockout can be achieved without the need to dismantle, rebuild, or replace the energy isolating device or permanently alter its energy control capability.
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, including, but not limited to, the following: a manually operated electrical circuit breaker; a disconnect switch; a manually operated switch by which the 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.
Energy source - Any source of electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or other energy.
Hot tap - A procedure used in the repair, maintenance, and services activities, which involves welding on a piece of equipment (pipelines, vessels, or tanks) under pressure, in order to install connections or appurtenances. It is commonly used to replace or add sections of pipeline without the interruption of service for air, gas, water, steam, and petrochemical distribution systems.
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.
Lockout device - A device that utilizes a positive means such as a lock, either key or combination type, to hold an energy-isolating device in a safe position and prevent the energizing of a machine or equipment.
Normal production operations - The utilization of a machine or equipment to perform its intended production function.
Servicing and/or maintenance - Workplace activities such as constructing, installing, setting up, adjusting, inspecting, modifying, and maintaining and/or servicing machines or equipment. These activities include lubrication, cleaning or unjamming of machines or equipment and adjusting or tool changes, where the employee may be exposed to startup of the equipment or release of hazardous energy.
Setting up - Any work performed to prepare a machine or equipment to perform its normal production operation.
Tagout - The placement of a tagout 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 tagout device is removed.
Tagout device - A prominent warning device, such as tag and a means of attachment, which can be fastened securely 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.

Appendix A

LOCKOUT/TAGOUT:
General Procedures for Employees

Sequence of Lockout or Tagout System Procedures

1. **Preparation:** Review the written procedure for the specific piece of equipment (if applicable). If a written procedure is unavailable, determine if one must be created. A specific written procedure is required when:
    a. Has more than one energy source
    b. Cannot be isolated by a single device
    c. There is Potential for stored, residual or accumulated hazardous energy

2. **Notification:** Notify all affected employees. The authorized employee must notify all affected employees of the impending shutdown. These persons must be informed that they are not to disturb the lockout device or attempt to re-start the equipment until they are informed that the lockout has been cleared and it is safe to resume normal operations.

3. **Shutdown:** The authorized employee with verify that it is safe to shut down the equipment. Once it has been determined to be safe, perform the normal shutdown of the equipment using established methods.

4. **Isolation and Verification:** The authorized employee will isolate all energy sources by operating the appropriate switch, valve, etc. Once the equipment is isolated, verify the means used for energy isolation correctly correspond to the equipment on which LOTO is being performed.

5. **LOTO Device Application:** Lock out the energy source using a lock that physically prohibits normal operation of the energy isolating device (i.e. locks to switch or valve in place). Apply a Tag to the lock that specifies the Name of the authorized employee, date of the lockout, and reason for locking the equipment out. The tag must be affixed to the lock, unless applying the tag would obstruct necessary indicator lights, in which case, the tag must be as close a reasonably possible.

6. **Additional Measures:** Insert physical restraints or disconnect components. Insert blocks, or chocks for moving or raised parts, insert bling flanges for pressurized piping, disconnect springs (if safe to do so), etc. to ensure potential moving parts are physically restrained.

    The authorized employee must completely release or otherwise control any stored hazardous energy and block any unexpected motion. Equipment should be in a zero-energy state. Equipment specific written procedures should outline how to achieve zero energy state.

7. **Isolation Verification:** After ensuring that no personnel are exposed, the equipment should be tested to ensure they are not operable
    a. Operate the push button or other normal operating controls to make certain the equipment will not operate.
    b. If the equipment may be operated from a remote station or computer control system the authorized employee MUST verify that the equipment will not start remotely. CAUTION: Return operating control(s) to —neutral“ or —off“ position after the test.

8. **Keep Systems in Place:** The equipment is now locked out and/or tagged out and should remain locked and tagged out until the work is complete. In rare cases, such as repositioning equipment, the lock and tag may be removed before work is 100% complete, but the authorized person is responsible to ensure the equipment is not operated and is locked and tagged out immediately after any moving/repositioning.

Restoring Machines or Equipment to Normal Production Operations

1. **Preparation and Notification:**
    a. Replace all safety guards and have the authorized person verify that they are secured in place.
    b. Clear all tools and personnel from the work area, have the authorized person inspect the area to confirm.
    c. Notify affected persons that the system is ready to be returned to service, and ensure all persons remain clear of the equipment and any potential hazard zones

2. **Removal of additional Devices:** After all tools have been removed from the machine or equipment, guards have been reinstalled and employees are in the clear, remove all lockout and tagout devices. Operate the energy-isolating devices to restore energy to the machine or equipment.

Procedures Involving More than One Person

In the preceding steps, if more than one individual is required to lockout or tagout equipment, each shall place his/her own personal lockout device or tagout device on the energy-isolating device(s). When an energy-isolating device cannot accept multiple locks or tags, a multiple lockout or tagout device (hasp) may be used. If lockout is used, a single lock may be used 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 his/her own lock to secure the box or cabinet. As each person no longer needs to maintain his or her lockout protection, that person will remove his/her lock from the box or cabinet.

Basic Rules for Using Lockout or Tagout System Procedures

All equipment shall be locked or tagged out to protect against accidental or inadvertent operation when such operations could cause injury to personnel. Do not attempt to operate any switch, valve, or other energy-isolating device where it is locked or tagged out.

Appendix B

LOCKOUT/TAGOUT:
Summary of Group Lockout/Tagout

Primary Authorized Employee Definition:
Individual designated by the supervising department with the primary responsibility for a set number of employees working under the group LO/TO device(s).

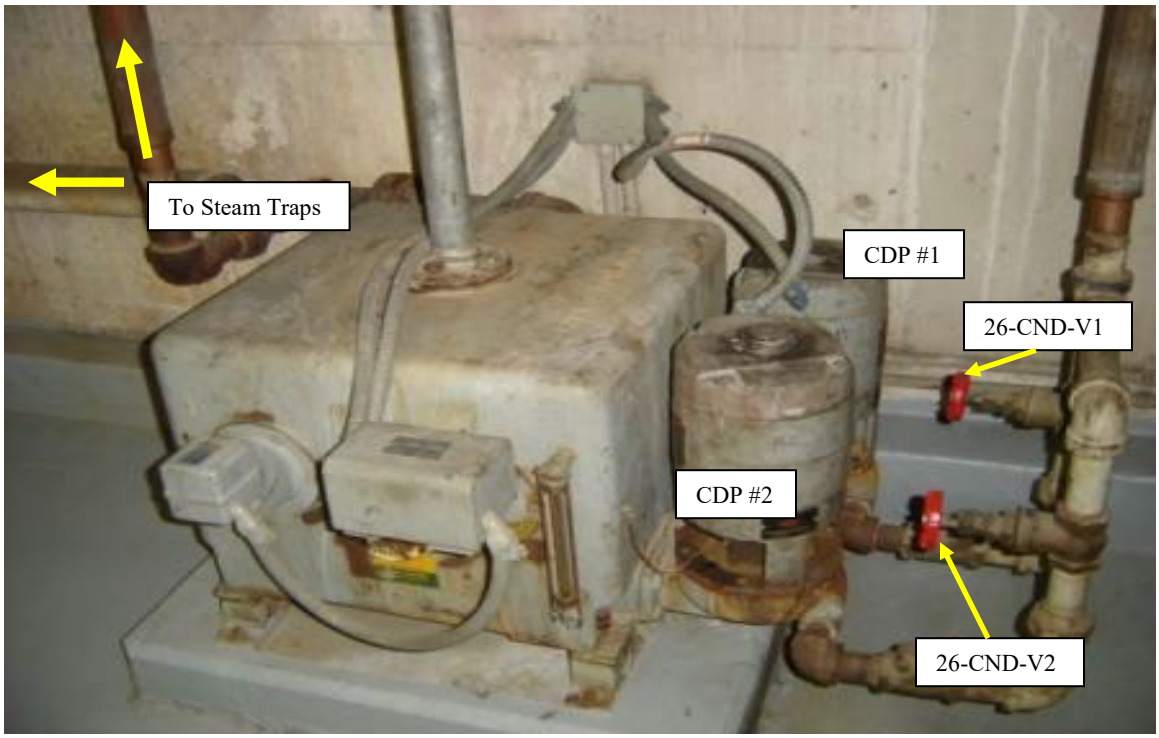
Responsibilities
The primary authorized employee must:

1. Implement and coordinate the LO/TO of hazardous energy sources.
2. Verify that the steps taken, in accordance with the specific written energy control procedure, have in fact isolated the machine or equipment effectively from the hazardous energy sources.
    a. This must be accomplished before authorized employees participating in the group LO/TO affix their personnel lockout device to the group LO/TO box and before performing servicing/maintenance activities.
3. Inform each authorized employee participating in the group LO/TO of their right to verify the effectiveness of the lockout measures, and allow each authorized employee to personally verify that hazardous energy sources have been effectively isolated, if they so choose.
    a. In addition to the primary authorized employee, an authorized employee, who opts to verify the effectiveness of the isolation measures, must perform this verification after affixing his or her personal lockout device to the lock box and before performing servicing/maintenance activities.
4. Provide for an orderly exchange of group LO/TO with a new primary authorized employee when work continues over multiple shifts.
5. Whenever work is performed over a period of time and is not continuous, the primary authorized employee shall walk through the affected work area(s) to verify effective isolation prior to beginning

Appendix C

LOCKOUT/TAGOUT:
Example of a Complex Lockout/Tagout Procedure

Equipment, machinery, or system: Condensate Pump #2		
Equipment #(s): 020026CDP2	**Building #:** 26 Lassen	**Room #:** 8302
Special Notes: Condensate pumps 1 & 2 take suction from the condensate tank. Both pump power supplies must be locked out prior to work being done.		



Energy Sources: Electrical		
Shut Down Sequence:		
Device Tag #	**Description**	**Action**
Panel E Breaker #21 Cond. Pump 1	Breaker CDP #1	Switch to off and lockout
Panel E Breaker #10 Cond. Pump 2	Breaker CDP #2	Switch to off and lockout
26-CND-V1	CDP #1 Discharge	Close valve and lockout
26-CND-V2	CDP #2 Discharge	Close valve and lockout
26-CND-V3	Hx Steam Trap Isolation	Close valve and lockout
26-CND-V4	DHW Tank Steam Trap Isolation	Close valve and lockout
26-CND-V5 26-CND-V6 26-CND-V7	Steam Trap Isolation Steam Trap Isolation Steam Trap Isolation	
Comments: Employees following this procedure must additionally follow standard LOTO rules to assure a zero energy state before proceeding. Employees must also follow standard notification procedure prior to shut down and before start up.		

Appendix D

LOCKOUT/TAGOUT PROGRAM:
Periodic Inspection of Energy Control Procedures

This form is used to inspect energy control procedures for the following equipment/machines:

_____

_____

Basic Information: (Complete/Compare with Existing Energy Control Procedures)

Department:	Building:	Date:	
Location/Area:			
Inspector:			
Authorized Employee(s) Involved:			
Other Employees Affected:			
Service/Maintenance Activities Requiring Lockout/Tagout:			
Review the current lockout/tagout procedures and indicate whether procedures are satisfactory. Any procedures marked NO must be explained under Comments/Deficiencies below.			
a. Control Methods: Satisfactory?		☐ Yes	☐ No
b. General Review of Responsibilities and Procedures: Satisfactory?		☐ Yes	☐ No
c. Energy Identification: Satisfactory?		☐ Yes	☐ No
d. Lockout Device: Satisfactory?		☐ Yes	☐ No
e. Energy Release Methods: Satisfactory?		☐ Yes	☐ No
f. Lockout Steps: Satisfactory?		☐ Yes	☐ No
g. Comments/Deficiencies:			
Certification:			
This energy control procedure is adequate (or modified as noted above). The inspector has reviewed appropriate responsibilities with the Authorized Employee(s). Tag limitations were inspected and appropriate affected employees included in this review where tagout devices are used.			
Inspector's Signature:		Date:	
Authorized Employee Signature:		Date:	