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**Facilities Management**  
**Lockout Tagout Standard Operating Procedures**

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SOP #:	EHS-005	Revision: 1
Dept:	Environmental Health and Safety	Date: 03/11/19
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## 1. PURPOSE

Colorado State University-Pueblo is actively concerned with the safety of all faculty, staff, students and guests on the CSU-Pueblo campus. Safety can only be effectively achieved with the cooperation of the entire campus community.

This document defines the Colorado State University-Pueblo procedures for implementing OSHA Standard 29 CFR 1910.147. The intent of Lockout Tagout is to prevent the unexpected energization or startup of equipment, machines, or systems, or release of stored energy, which could cause injury to employees. In order that the LOTO program be fully implemented and provide the protection necessary, each employee must be made aware of the program and must adhere to the requirements as outlined.

## 2. RESPONSIBILITIES

2.A. Environmental Health and Safety (EHS) will be responsible for:

2.A.1. Establishing a training program for both existing employees and new hires regarding Lockout Tagout procedures.

2.A.2. Providing initial LOTO devices and oversight of LOTO device accountability.

2.B. All Authorized Employees will be responsible for:

2.B.1. Using LOTO devices as required.

2.B.2. Removing LOTO devices at the end of the job. Authorized Employees must not place or remove locks/tags other than their own.

2.B.3. Notify EHS of any potential health hazards due to noise concerns.

### 3. DEFINITIONS

3.A. AFFECTED EMPLOYEE – An employee whose job requires him/her to operate or use a piece of equipment or machine on which servicing or maintenance is being performed under LOCKOUT/TAGOUT, or whose job requires him/her to work in an area in which such servicing or maintenance is being performed.

3.B. AUTHORIZED EMPLOYEE – A person who locks and tags or implements a LOTO procedure on equipment or systems to perform servicing or maintenance on such equipment.

3.C. ENERGY SOURCE – Any source of electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or other energy that could cause personal injury.

3.D. SPECIAL PROCEDURE – A procedure written to isolate equipment that cannot be positively locked out. This procedure should afford the employee(s) a level of protection that is equivalent to that provided by a positive lockout device.

3.E. TEST – To operate the normal operating controls to check the status of the equipment.

3.F. VERIFICATION – To establish the accuracy of the lockout. This can be accomplished simply by careful scrutiny of the lockout procedure at the lock box looking to see if it's up to date, signed and/or includes exceptions. Personal inspection and testing is acceptable verification.

### 4. PROCEDURES

4.A. The equipment or system will be shut down in a normal shut down manner prior to LOCKOUT/TAGOUT devices being placed, with controls left in the neutral or "OFF" position. Release all residual energy stored in the equipment or system. Test to ensure no residual energy remains.

- 4.B. Each Authorized Employee will verify that the equipment has been shut down and will then open each switch and/or turn off each valve, installing blanks, chains/cables, etc., as appropriate, or verify that such has been done.
- 4.C. Each employee involved in the job will place his/her individual lock/tag on each switch, valve, or safety device required to make the equipment safe. The lock/tag must include employee's name, department, and phone number. Employees shall not begin work prior to installing his/her personal locks/tags. No Employee shall place the lock/tag for another person. No lock is to be used without a tag. Tie wrap devices shall not be used if the device is lockable.
- 4.D. Each employee will then verify that the normal operating controls will not start the equipment or release any stored energy prior to the start of the job. Caution: Return operating control(s) to the neutral or "OFF" position after verification.
- 4.E. All Affected Employees in the area must be notified that the equipment or system has been locked/tagged out and is inoperable.
- 4.F. **Treat all electrical connections, bus, and cables as energized until tested.** Prior to coming in contact with any electrical connections, each employee shall use an appropriate voltage test device, or observe the test, to verify that no voltage or current exists. Use all appropriate PPE, as equipment must be treated as energized until confirmed otherwise. This is the last step of the LOTO process and repair work can now begin.
- 4.G. At the completion of the job or at the end of the shift (whichever comes first), each employee shall remove his/her lock/tag. No employee shall remove the lock/tag of another person.
- 4.H. If at the end of the job a lock/tag is left on a switch, valve or device, the individual whose name is on the lock/tag is to be contacted to return to the site to remove it. If the individual is not at work (has left for home) or cannot be contacted, the individual's immediate supervisor or other knowledgeable management shall be called to come to the site. The supervisor shall verify that the individual whose lock/tag is remaining is not at the worksite, has completed his work and is not able to be contacted to remove his/her lock/tag.

After such verification and the supervisor determines that the lock should be removed, he shall notify all Affected Employees. Then and only then EHS will remove the lock. EHS shall sign the lock/tag stating that he had removed it including the date and time that it was removed. The individual whose lock was removed must be contacted prior to the start of his/her next scheduled shift or as soon as possible to inform him/her that the lock/tag on the equipment in question had been removed and to re-instruct the employee on the LOTO policy.

#### 4.I. Special Procedures

4.I.1. If the equipment to be worked on is not capable of being locked out, contact your supervisor to develop a safe working procedure. This procedure must be written and may include attaching a tag using appropriate plastic ties, removal of leads, blocking of piping with a blank, installing of special barricades, and any other safe procedure that you and your supervisor deem necessary. The equipment should be made lockable as soon as possible.