> Lock Out / Tag Out Program Revision 1 February 2019

1. Lock Out / Tag Out Program 2. SCOPF	1 2
3. DEFINITIONS	
4. RESPONSIBILITY	5
5. TRAINING	7
6. Lock out / Tag out Procedures	10
7. SPECIAL SITUATIONS	
8. EQUIPMENT STARTUP AND OPERATION	15

1. PURPOSE

- 1.1. Approximately 144 fatalities occur every year due to incidents involving the accidental release of hazardous energy in the work place. Failure to follow LOCK OUT / TAG OUT procedures can also lead to severe injuries such as contusions, lacerations, and amputations. OSHA believes the LOCK OUT / TAG OUT standard (29 CFR 1910. 147) will prevent 85 percent of the injuries or fatalities that occur from exposure to hazardous energy in the work place. That is about 122 fatalities, 28,400 lost workday injuries, and 31,900 non-lost workday injuries prevented each year.
- 1.2. Both authorized and affected personnel need to be aware of their duties and functions during LOCKOUT and TAGOUT procedures.
- 1.3. An effective LOCK OUT / TAG OUT program requires cooperation and commitment from all levels. The safety of affected and authorized employees depends on their undestanding and respect for LOCK OUT / TAG OUT procedures.

3. DEFINITIONS

<u>Affected / Unqualified Employee</u> - An employee who operates or uses a machine or equipment

be "as effective as" lockout to be permissible. The tag or other warning device must be durable and identify the authorized employee that affixed the device.

4. RESPONSIBILITY

- 4.1. Identification of Equipment
 - 4.1. A. The lead technician will make a survey of the facility to identify equipment that requires lock-out/tag-out during maintenance and servicing operations. The survey will include locating and identifying all isolating devices such as switches, valves, etc. to be locked and tagged out. When more than one energy source may be involved, a specific procedure will be developed for each machine or type of device requiring lock out / tag out if a procedure is not made available to BRISTOL COMMUNITY COLLEGE. The lead tech will notify the BRISTOL COMMUNITY COLLEGE Director of Facilities of any unique or unanticipated hazards that are identified prior to or during work. BRISTOL COMMUNITY COLLEGE will then notify the client of unanticipated or workplace hazards onsite and any steps taken to mitigate those hazards.
- 4.2. Affected & Authorized Employees
 - 4.2. A. Are required to follow this energy control program.
 - 4.2. B. Are to report deficiencies or problems with the program to the Director of Facilities immediately upon detection.
 - 4.2. C. Will report to the Director of Facilities whenever they leave the equipment or machinery, which has been locked out.
- 4.3. Director of Facilities
 - 4.3. A. Shall establish a "Key Control System" based on a "One Lock-One Key" policy.
 - 4.3. B. Will periodically (at least annually) audit this program.
 - 4.3. C. If tag-out is approved for use when lock-out is not possible, the Director of Facilities is to ensure the tag-out provisions of OSHA's Control of Hazardous Energy Source (29 CFR 1910.147) regulations are followed.
 - 4.3. D. Assure this energy control program is reviewed with all personnel.
 - 4.3. E. Shall conduct initial training of authorized and affected employees on this program.
 - 4.3. F. Shall retrain appropriate employees whenever there is a change in this program.
- 4.4. General Responsibilities
 - 4.4. A. If you are not an authorized person, it is important that you stay clear of the area. Do not try to bypass or defeat locks. Never interfere with locks or any other devices used to block energy. Locked out machines or equipment must remain de-energized. Never attempt to help in the procedure if you are not authorized.
 - 4.4. B. Know the machinery you work on, including the different energy sources involved. In addition, know your company's policy for lockout and tagout procedures. Communicate any problems you come across with authorized personnel who are to perform the lock out and tag out procedure.
 - 4.4. C. Authorized personnel are responsible for removing locks and tags after a machine or equipment has been reenergized. If an open lock is left on a latch or a tag is on machinery or equipment that is working, notify the Director of Facilities.
 - 4.4. D. If you come across a situation that you are unsure of, do not attempt to power up a machine or equipment. If you do not see anyone around, don't assume that no one is near the machine or equipment. A person could be behind equipment or machinery or some distance away from the operating controls.

- 4.4. E. If you find a tag lying on the floor, contact the Director of Facilities immediately. Again, do not power up a machine if you suspect maintenance activities are taking place.
- 4.4. F. As an affected employee, you need to understand BRISTOL COMMUNITY COLLEGE'S LOCKOUT and TAGOUT procedures and know what role you play in helping to prevent incidents. If you have any questions about Lock Out / Tag Out procedures at BRISTOL COMMUNITY COLLEGE, check with the Director of Facilities.
- 4.4. G. An effective LOCK OUT / TAG OUT program requires your cooperation. No matter what your role in the procedures, a respect and awareness of the potential hazards is necessary to prevent incidents from occurring at BRISTOL COMMUNITY COLLEGE.

A Study by the National Institute for Occupational Safety and Health (NIOSH) found that 63 percent of workers injured by the release of hazardous energy were production workers. They were not authorized personnel who maintain and service equipment.

5. TRAINING

- 5.1. Purpose of training
 - 5.1. A. Awareness introduction:
 - 5.1. A.1. When equipment needs to be serviced or maintained, LOCK OUT / TAG OUT procedures must be used to isolate energy sources and bring the machinery to a zero energy state. This awareness program will explain why Lock Out / Tag Out procedures are necessary, provide an overview of Lock Out / Tag Out procedures, and discuss your role in preventing incidents and injury. All employees will be trained to identify and understand the relationship between injuries and electrical energy.
 Procedures introduction:
 - 5.1. B. Procedures introduction:
 - 5.1. B.1. As an authorized employee, it is your responsibility to ensure that proper LOCK OUT / TAG OUT procedures are followed. This procedures program will discuss the importance of following proper procedures, the proper steps for LOCK OUT / TAG OUT, and special situations during LOCK OUT / TAG OUT. Only authorized and qualified employees may apply or remove locks and tags, and conduct any testing, troubleshooting, or measuring of voltage if it is conducted within the equipment's limited approach boundary.
 - 5.1. B.2. Training is documented and is to be maintained for the duration of employment with BRISTOL COMMUNITY COLLEGE.

5.1.B.3.

interact with each other. If all energy sources are not isolated before servicing or maintenance is performed, an accidental release of energy could occur which may result in injury or even death.

- 5.5. C. The goal of lock out and tag out procedures is to prevent energy from accidentally being released while machines and equipment are being maintained and serviced. Locks and tags help to prevent equipment or machinery from accidentally being started up while work is being performed. Locks prevent switches from being activated or valves from being turned on. Tags warn that machinery or equipment has been de-energized so work can be performed.
- 5.5. D. Failure to safely control energy can lead to severe injuries and even death. By understanding and following the proper procedures for LOCK OUT and TAG OUT, you are helping to protect your safety and your co-workers' safety.

- 7.4. A. An alternative example to a group lockout situation is to put the keys to the locks on the isolating devices in a box. This box is then locked with a departmental lock by the person assigned to oversee the lockout procedure. A personal lock for each authorized employee involved in the procedure is then attached. The departmental lock assures that the system is locked out during a shift change. It may not be removed until all personal locks are removed. Whatever the lockout method used, it must assure that no single employee could re-energize the system while others are still working on it.
- 7.5. Contractors
 - 7.5. A. Outside contractors may have procedures that differ from BRISTOL COMMUNITY COLLEGE. Before any work is done, both the employer and contractor need to coordinate their procedures. A contractor's procedures must be as safe as those established at the facility.
- 7.6. Shift or Personnel Changes
 - 7.6. A. A system being worked on must remain locked out during a shift or personnel change. The person leaving the job site should not remove his/her lock until the arriving worker has locked out.
- 7.7. Expanding or contracting LO/TO procedures that are in effect
 - 7.7. A. If it becomes necessary to change switching, blocking, tagging or grounding while a Lock Out/Tag Out is in effect, the Person in charge (DIRECTOR OF FACILITIES) / Lead Technician will first obtain the consent from all persons who have locks or tags on the equipment stating:

The designation of each switch and device which will be open, blocked and properly tagged to effect the change. The designation of all grounding switches which will be closed and location of all portable grounds which will be placed, if any,

and tagged to effect the change.

The designation of each switch and device from which tags will be removed and which will be closed to effect the change. The designation of all grounding switches and locations of all portable grounds from which tags will be removed and which will be opened or removed to effect the change.

When the change will be made

7.7. B. If the above is satisfactory to the qualified persons, the new switching, blocking, tagging and grounding shall be carried out. The Director of Facilities shall inform all persons who have locks or tags on the equipment of the changes and the specific time of the expansion or contraction of the Lock Out / Tag Out. After this, the original switching, blocking, tagging and grounding shall be changed or removed.

8. EQUIPMENT STARTUP AND OPERATION

8.1.

