PURPOSE:
The purpose of this program is to establish minimum safe work procedures for Facility Management personnel that are required to perform service or maintenance on machinery or equipment where unexpected energizing, start up or release of energy could occur and cause injury. Procedures contained within this policy are intended to prevent harm to personnel servicing the equipment by ensuring the equipment will be rendered safe to work on by dissipating and locking out, blocking or tagging out all energy sources.

DEFINITIONS:

Affected Employee – Person who operates or uses equipment on which services or maintenance is being performed under LOTO, or whose job requires employee to work in an area where services or maintenance is being performed.

Authorized Employee – Person who utilizes Lockout/Tagout (LOTO) on all energy sources for a machine or equipment in order to perform servicing or maintenance on that machine or equipment.

Energy Isolating Device – A mechanical device that physically prevents the transmission or release of energy.

Lockout Device – A device that utilizes a positive means to hold an energy isolating device in a safe position and prevents the energizing of a machine or equipment. A uniquely-keyed lock, used only for LOTO, must be applied to each lockout device. A tag must be attached to each lock, to identify the authorized employee who applied the lockout device.

Tagout Device – A prominent warning device which can be securely fastened to an energy isolating device to indicate the energy isolating device and equipment being controlled may not be operated until the Tagout device is removed. The device must be substantial enough to require a conscious effort to remove it. Each Tagout device must identify the authorized employee who applied the device.

PROGRAM COMPONENTS:
1. Lockout/Tagout (LOTO) Procedure
2. Group LOTO Procedure
3. Authorized Removal of LOTO Device
4. Inspection of LOTO Procedures
5. Special Conditions
6. Training
7. Responsibilities

1. LOCKOUT/TAGOUT (LOTO) PROCEDURE:
When lockout/Tagout is performed, the Authorized Employee(s) is responsible to:

A. Identify All Hazardous Energy Sources
   - Identify and locates all energy source(s) to be isolated for the specific equipment to be serviced.

B. Notify All Affected Employees
   - Notify BSAC and/or any affected employees of plan to de-energize equipment to perform service or maintenance. If necessary, ensure shutdown of equipment has been coordinated with customer(s).

C. Shut Down Equipment
   - Shut down equipment to be serviced using normal stopping procedures.

D. Isolate Energy
   - Locate and operate all energy isolating devices at the main energy sources of the equipment to be serviced to isolate and control the energy to the equipment. Common energy sources found in Facility Management work locations include electrical, mechanical, stored and gravitational energies.
   - Push buttons, selector switches and other control type devices are not energy isolating devices.

E. Attach Lockout/Tagout Device
   - Each individual authorized employee with a possible exposure to unexpected energizing, start up or release of energy is to apply their personal LOTO device to each energy isolating device.
     1. Ensure the LOTO device has been attached to the energy isolating device in a manner to prevent accidental re-energization.
   - Where a lockout device can not be utilized to hold the energy isolating device in a safe or off position, a tagout device is to be utilized.
     1. Tagout Device – a Tagout device is to be utilized only when the energy isolating device will not accept a lockout device.
     2. Where a tag cannot be affixed directly to the energy isolating device, the tag is to be located as close as safely possible to the device, in a position that will be immediately obvious to anyone attempting to operate the device.

F. Release Stored Energy
   - After the LOTO devices are applied to all energy control devices, disconnect, drain, block and/or release all stored and residual energy sources for the equipment to be serviced.

G. Verify Isolation
   - Prior to beginning service on equipment where LOTO procedures have been applied, verify all energy sources have been isolated and de-energized.
H. Perform Service/Maintenance
   • After verification of isolation, perform service/maintenance on the equipment.

I. Release from LOTO
   • After service/maintenance has been completed and prior to removing LOTO devices or restoring energy to the equipment:
     1. Ensure all employees have been safely positioned or removed and all affected employees (including BSAC) have been notified of re-energization.
     2. Clear and inspect the work area to ensure all tools, supplies and nonessential items have been removed and the equipment is operational.
     3. Ensure operating controls are in the off position.
     4. Each worker is to remove their own LOTO device from each energy isolating device.

J. Restore Energy and Re-Energize Equipment
   • After LOTO devices have been removed from each energy isolating device, energy can be restored and the equipment can be re-energized.

2. GROUP LOTO PROCEDURE
   When service on equipment is to be performed by Facilities Management employees in a group, crew or department where there is exposure to unexpected energizing, start up or release of energy, Group LOTO can be utilized.
   • A multi-lock lockout device should be used where possible, so that each worker’s lock is applied to the lockout device. If such a device can not be accommodated, use the following procedure:
      o A Lead Authorized Employee performing service on the equipment will follow the Personal LOTO Procedures for the specific equipment to be serviced.
      o Keys for each LOTO device applied will be placed in a Group LOTO box.
      o The Lead Authorized Employee will then place their personal LOTO lock to the outside of the Group LOTO box.
      o Each authorized employee performing service on the equipment will verify the LOTO procedure and place their personal LOTO lock on the outside of the Group LOTO box while they are performing service on the equipment.
      o After service is completed, the equipment will not be released from LOTO until all authorized employees have removed their personal LOTO lock from the Group LOTO box and the LOTO devices have been removed from each energy isolating device.

3. AUTHORIZED REMOVAL OF LOTO DEVICE
   If the authorized employee who applied the LOTO device is not available to remove the device, the LOTO device will be removed by the authorized employee’s supervisor using the following documented steps (see APPENDIX B: LOTO Device Removal Request):
      A. Verify the authorized employee is no longer at the work site.
B. Attempt to contact the authorized employee making all reasonable efforts to inform them that their LOTO device has been removed.
C. Inform the authorized employee prior to their next shift that their LOTO device has been removed.

4. INSPECTION OF LOTO PROCEDURES
Supervisors will conduct a documented periodic inspection of the energy control procedures for the equipment under their supervision at least annually to ensure the procedure and requirements of the LOTO Program are being followed. At a minimum, the periodic inspection (see APPENDIX C: Periodic LOTO Procedure Inspection Form) will document:
- The machine or equipment that the energy control procedure was being utilized,
- The date of the inspection,
- The employees included in the inspection, and
- The person performing the inspection.

5. SPECIAL CONDITIONS
Specific procedures will be utilized during unusual circumstances to ensure continuity of the LOTO Program.
- **Shutdown of Equipment for Extended Periods**
  - When the equipment that is being serviced must be shutdown for an extended period of time, as with seasonal shut-downs, the personal LOTO device will be removed by the authorized employee.
  - A department specific lock and tag will then be secured to the energy isolating device by an authorized employee or Supervisor.
  - The authorized employee will reattach their personal LOTO device anytime service will be completed on the de-energized equipment, and must verify that all energy sources are still isolated and de-energized.
- **Shift Changes**
  - It is the responsibility of the off-going Supervisor involved with the locked or tagged out equipment to ensure that the continuity of the energy control procedure is maintained until the on-coming Shift Supervisor arrives. The continuity of the program is maintained through a department specific lock and tag attached by the Supervisor, or by the next shift worker immediately applying their own lock.

6. TRAINING:
All supervisors and employees utilizing or exposed to LOTO must be trained in the purpose and function of the energy control program prior to engaging in LOTO operations. After the initial training has been completed, additional training may be required for authorized and affected employees under any of the following conditions:
- Before a change in assigned duties,
- When there is a change in machines, equipment or processes that present a new hazard,
- When there is a change in energy control procedures,
- When employee re-training is needed.
7. RESPONSIBILITIES:

Managers
- Assure this LOTO Program is implemented by supervisors and employees assigned to service or maintain equipment where unexpected energizing, start up or release of energy could occur and cause injury.

Supervisors
- Assure the LOTO Program procedures are implemented by all authorized and affected employees under their supervision.
- Ensure the equipment necessary for safe LOTO is readily available for employee use.
- Ensure all authorized and affected employees have attended initial LOTO training and any refresher LOTO training thereafter.
- Review the energy control procedures for equipment under their supervision at least annually to ensure the procedures and provisions of the LOTO Program are being followed.

Authorized Employees
- Understand and follow the LOTO Program safe work procedures.
- Participate in the initial and refresher LOTO training sessions.
- Immediately report any unsafe LOTO hazards or situations to your supervisor.

Affected Employees
- Understand LOTO devices are not to be disturbed and are only to be removed by the authorized employee.
- Participate in the initial and refresher LOTO training sessions.
- Immediately report any unsafe LOTO hazards or situations to your supervisor.

APPENDICES:
- A – LOTO Procedure Form
- B – LOTO Device Removal Request
- C – Periodic LOTO Procedure Inspection Form

Legal Reference: 29CFR 1910.147
APPENDIX A
FACILITIES MANAGEMENT LOCKOUT PROCEDURE

Equipment Name:  
Operating Unit:  
Location:  

Date Written:  
Date Revised:  

**LOCKOUT STEPS**
1. Determine responsibilities – Pre Job Plan.
2. Know the types and magnitude of hazardous energy.
3. Notify affected employees
4. Shut down/turn off the equipment.
5. Isolate the equipment from hazardous energy.
6. Apply the lockout - devices/locks.
7. Relieve stored energy.
8. Verify isolation – try to start the equipment.

**RELEASE FROM LOCKOUT**
1. Remove tools, materials, and equipment
2. Check work area.
3. Make sure all employees are safely positioned and notified.
4. Ensure operating controls are in “OFF” position
5. Remove locks and devices, and energize.
   - Personal locks may only be removed by their owners. For exceptions follow LO/TO program for removal of LOTO devices by other than Authorized Employee.

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## APPENDIX A

### LOCKOUT STEPS, CONTINUED

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### VERIFY ISOLATION – TRY TO START EQUIPMENT

**COMMENTS AND SUGGESTED REVISIONS:**

- 
- 
- 
- 
- 

### VERIFY JOB IS COMPLETE AND ALL LOCKS HAVE BEEN REMOVED

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APPENDIX B

FACILITIES MANAGEMENT LOTO DEVICE REMOVAL REQUEST

If the authorized employee who applied the LOTO device is not available to remove the device, the LOTO device will be removed by the authorized employee’s supervisor using the following documented steps:

Check appropriate boxes:

☐ 1. Individual whose LOTO device will be removed has been personally contacted.
   Method used to contact individual (e.g. work cell phone, pager, personal cell phone)?
   ________________________________________________________________________________
   Method                                  Date/Time

☐ 2. Supervisor personal lock – contact Shift Supervisor.
   Foreman personal lock – contact General Foreman.

☐ 3. Unable to contact individual.

If #3 above is checked, complete the following steps:

☐ A. Called employee at home. Spoke to:
   ____________________________________________  ______________________
   Name                                  Date/Time

☐ B. Talked to fellow crew members:
   ____________________________________________  ______________________
   Name                                  Date/Time
   ____________________________________________  ______________________
   Name                                  Date/Time

☐ C. A standby person will be stationed by the work location or point of exposure until the equipment is running.

By virtue of our signatures below, we attest to the fact that, to the best of our knowledge, the owner of this LOTO device is not at the University.

The employee whose LOTO Device has been removed will be notified prior to start of next shift.

________________________________________            ___________
Supervisor/Foreman Signature Date

________________________________________            ___________
Witness Signature Date
FACILITIES MANAGEMENT PERIODIC LOTO INSPECTION FORM

Operating Unit: ____________________________ Date: ______________________________
Inspector Name: ___________________________ Time: ______________________________
Equipment Name: __________________________ Location: ____________________________
Procedure Name/Number: ___________________________________________________________

1. Yes No LOTO procedure is written for the equipment.
   If No, contact supervisor to develop procedure.

2. Yes No Proper LOTO procedure for equipment is posted at the work site.

3. Yes No All applicable procedure steps are initialed and completed, or an explanation is written
   in the comment section explaining why a step was skipped.
   If No, STOP work immediately and contact Lead individual to verify and correct.

4. Yes No All energy isolation points identified on the procedure appropriately shut off and LOTO
   device applied with authorized employee’s personal lock and tag.
   If No, STOP work immediately and contact authorized employee to turn off all energy
   isolation points and apply LOTO device(s).

5. Yes No All authorized employees who are working on the equipment have their personal LOTO
   device attached to each energy isolation point or group LOTO box.
   If No, STOP work immediately and contact authorized employee(s) to apply their
   personal LOTO devices.

Review inspection results and responsibilities with each Authorized Employee

Inspector Signature: ___________________________________________________________

Name of Authorized Employees performing work on the equipment:

___________________________________________________________________________
___________________________________________________________________________
___________________________________________________________________________
___________________________________________________________________________
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