



Duke University - Facilities Management Department

Safe Work Practice Policies

LOCKOUT-TAGOUT (LOTO) PROGRAM

Applicable to: All FMD Organizations

Date Effective: 1 August 2018

Issue No.: 1

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- A. Purpose.** In order to prevent injury to employees, this policy requires Facilities Management Department (FMD) to establish a program and utilize written procedures for affixing appropriate lockout devices or tagout (LOTO) devices to energy isolating devices, and to otherwise disable machines or equipment to prevent unexpected energization, start up or release of stored energy. This document is not intended to be totally inclusive but rather highlight the information and requirements in the complete OSHA Standard 1910.147 that Facilities Management (FMD) supervisors and managers will understand and adhere to.
- B. Scope.** This program applies to the control of energy during installation of new equipment, servicing and/or maintenance of systems, machines, and equipment by all FMD employees and supplemental labor working for FMD. It is the responsibility of the turnkey contractors to ensure their employees are compliant with the current OSHA regulations, and also aware of any additional requirements set forth by Duke and/or FMD. FMD hiring personnel and the outside employer shall inform each other of their respective lockout or tagout programs.
1. This applies to all of the Duke University Systems and Equipment operated and maintained by the FMD.
 2. Describes guidelines for the performance of LOTO on all Building Systems and Equipment.
 3. LOTO Procedures should be used in conjunction with Job Hazard Analysis (JHA), Method and Procedure (MAP), Standard Operating Procedure (SOP), and Confined Space Entry Procedures when applicable. Each procedure will be reviewed on an annual basis as part of the Periodic Inspection and training conducted as needed.
- C. Policy.** FMD will take all reasonable measures to provide a safe workplace. All FMD operations must be performed in a manner, which will prevent any undesirable effects to FMD and/or Duke employees, assets, the local community, and the environment. The provisions of this program and all applicable standards will be followed to ensure the safety of personnel performing service or maintenance activities to equipment, machines, or systems.
- D. General Requirements.** FMD will establish a program consisting of written *energy control procedures, employee training, and periodic inspections* to ensure that before any employee performs any installation of new equipment, servicing or maintenance on systems, machines or equipment where the unexpected energizing, startup or release of stored energy could occur and cause injury, the machine or equipment will be isolated from the energy sources and rendered inoperative. All newly purchased equipment must be capable of being locked out. LOTO may be performed only by authorized employees who are trained on proper LOTO procedures before performing the servicing or maintenance.
- E. Definitions**
1. **Affected employee:** An employee whose job requires him/her to operate or use a machine or equipment on which installation of new equipment, servicing or maintenance is being performed under LOTO, or whose job requires him/her to work in an area in which such servicing or maintenance is being performed.
 2. **Authorized (qualified) employee:** A person who locks out or tags out machines or equipment in order to perform servicing or maintenance on that machine or equipment. An affected employee becomes an authorized employee when that employee's duties (based on their knowledge of that specific piece of equipment or system) include performing installation of new equipment, servicing or maintenance covered under this section. An Authorized employee or Qualified Person (same thing) is authorized to write a LOTO procedure without review by a supervisor, as determined by the respective supervisor.
 3. **Control Lock:** Lock used by a group or person who is performing the shutdown of equipment or a system for another group or person in conjunction with the LOTO procedure in order to maintain control of the startup of the system.

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4. **Energized:** Connected to an energy source or containing residual or stored energy.
5. **Energy isolating device:** A mechanical device that physically prevents the transmission or release of energy. Push buttons, selector switches and other control circuit type devices are not energy isolating devices.
6. **Energy source:** Any source of electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or other energy.
7. **Group Lock:** This is a lock applied to the energy source isolation point(s) or used in multiple lock box applications.
8. **Job Hazard Analysis (JHA):** A job hazard analysis is a written procedure that focuses on job tasks as a way to identify hazards before they occur. It focuses on the relationship between the worker, the task, the tools, and the work environment.
9. **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.
10. **Lockout device:** A device that utilizes a positive means such as a lock, chain, blind flange, cap, etc., to hold an energy isolating device in the safe position and prevent the energizing of a machine or equipment.
11. **Methods and Procedures (MAP):** Methods and procedures for work in conjunction with Duke University critical facilities such as Data Centers.
12. **Operational Lock:** These are yellow-bodied locks which shall be used only for operational purposes (i.e. – system temporarily out of service for summer, etc.). Yellow locks and tags should be used (See Attachment E). This lock is not to be used for personal protection purposes.
13. **Personal Lock:** These are individual employee locks which shall have only one key that is to be retained by the authorized employee identified on the lock. The name, phone number and/or other contact information for the lock owner should be adhered, engraved, or stamped on the body of the lock.
14. **Single Energy Source:** Wherein only one source of electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or other energy exists.
15. **Standard Operating Procedures (SOP):** A set of instructions having the force of a directive, covering those features of operations that lend themselves to a definite or standardized procedure without loss of effectiveness.
16. **Supplemental Labor:** An outside service personnel who reports directly to an FMD supervisor each day for work, not their company's supervisor. FMD is responsible for the safety training of these workers in regards to the work they are performing at Duke.
17. **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.
18. **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. It will indicate, at a minimum, contact information for the individual that placed the tag on the device: Name, Shop/ Area, Date, Phone Number where he/she can be reached, and any other pertinent information.
19. **Turnkey Labor/Contractor:** An outside service personnel contracted under an agreement where a company provides personnel to do a particular task or project and where supervision falls under the responsibility of their company. Their company is responsible for the safety training of these workers in regards to the work they are performing at Duke.

F. Responsibility

1. Management shall:
 - a. Provide necessary equipment and resources to implement a Hazardous Energy Control Program.
 - b. Ensure full compliance with the detailed responsibilities of employees set forth in the referenced procedures, policies and standards applicable to their work areas.
 - c. Develop the initial specific hazardous energy control procedures for applicable machines and equipment.

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- d. Coordinate the writing of the procedures for work that is assigned to them that involves multiple FMD disciplines. The equipment owner will be responsible for actually consolidating the input from these disciplines and writing the procedure.
- e. Review hazardous energy control procedures they write with employees in their respective work areas, as required.
- f. Ensure compliance with the Hazardous Energy Control Program requirements within their specific work areas.
- g. Ensure LOTO training is conducted for all personnel within their work area affected by this program.
- h. Ensure that a LOTO program review is performed at least annually.
- i. Conduct and document a periodic review of LOTO procedures for their work area.
- j. Inform supplemental labor and turnkey contractors that the workplace contains equipment with hazardous energy sources.
- k. When employing supplemental labor, contracted personnel are to be engaged in activities covered by the scope and application of this Program.
2. Employees shall:
 - a. Develop and review specific hazardous energy control procedures for applicable machines and equipment prior to commencing work. Review with the supervisor, as necessary.
 - b. Follow safe work practices and use the appropriate written LOTO procedure while performing work on equipment with hazardous energy sources.
 - c. Report to their supervisors any unsafe conditions concerning the control of hazardous energy sources.
 - d. Must maintain a written log of LOTO (see paragraph H.5).
 - e. Attend LOTO training
3. FMD Safety shall:
 - a. Provide initial and refresher training to FMD personnel.
 - b. Periodically review this Program.
4. OESO shall:
 - a. Assist in auditing FMD's LOTO Program, as needed.
5. Turnkey Contractors shall:

It is the responsibility of the turnkey contractors to ensure their employees are compliant with the current OSHA regulations, and also aware of any additional requirements set forth by Duke and/or FMD. FMD hiring personnel and the outside employer shall inform each other of their respective lockout or tagout programs. Turnkey contractors will provide documentation of their OSHA compliant program and employee training records to the contractor management company FMD has partnered with.

G. Equipment List

1. Duke Employees and Supplemental Labor
 - a. Locks
 - 1) Only red-bodied locks shall be used for LOTO purposes. No taping of locks will be allowed to comply with this procedure. (See Attachment A).
 - 2) LOTO locks shall be manufactured by American Safety or Brady and individually keyed. No master keys shall be made for locks designed to control hazardous energy.
 - 3) Group Lock: This is a lock applied to the energy source isolation point(s) or used in multiple lock box applications. Information shall include the name of the organization, lock number and/or other contact information for the lock owner and should be adhered, engraved, or stamped on the body of the lock.
 - 4) Control Lock: This is a lock used by a group or person who is performing the shutdown of equipment or a system for another group or person in conjunction with the LOTO procedure in order to maintain control of the startup of the system. This lock is not intended for personnel protection. All persons working on the system or equipment that could be exposed to an energy source must apply their personal lock to the

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equipment or lock box. Control locks must be individually keyed and keys will be maintained by each group. Control locks will be labeled with group name, lock, and contact phone number.

- 5) Personal Lock: These are individual employee locks which shall be retained by the authorized employee identified on the lock. The name, phone number and/or other contact information for the lock owner should be adhered, engraved, or stamped on the body of the lock.
- 6) Operational Lock: These are yellow-bodied locks which shall be used only for operational purposes (i.e. – system temporarily out of service for summer, etc.). (See Attachment E). This lock is not to be used for personal protection purposes.

b. Tags

- 1) FMD employee tags used by authorized persons shall be Brady 76226, "DANGER - DO NOT OPERATE". (See Attachment B)
- 2) Tags shall be protected when exposed to adverse environmental conditions.
- 3) Tags will be secured using a self-locking, non-releasable device with a minimum unlocking strength of 50 pounds, such as a nylon cable-tie.
- 4) Tagout tags are not to be used for any purpose other than lockout or tagout.
- 5) Tagout tags shall have the name, date, phone number, and/or other contact information of the authorized employee who places the lock and tag clearly written. Indelible ink must be used.
2. When locking out a machine or equipment, locks and tags must be used whenever possible.
3. If it is not possible to lock-out a piece of machinery, a tag may be used but must afford equivalent or greater protection than the use of a lock.
4. Even though OSHA allows a tag only system for certain equipment, if equipment is identified that cannot have locks readily applied, discuss with supervisor if there is a reasonable solution to provide a locking mechanism.
5. Turnkey contractors shall use standardized locks & tags as determined by their company's written policy.

H. Procedures

1. All equipment required to be locked and tagged out will be de-energized and isolated per written procedures for all Duke University's Facilities equipment maintained by FMD. The only exceptions for not having a written procedure are:
 - a. Written procedures are **NOT** required if **ALL** of the following apply:
 - 1) The machine/equipment has NO POTENTIAL for stored or residual energy or re-accumulation of stored energy after shut down.
 - 2) The machine/equipment has a SINGLE ENERGY SOURCE which can be readily identified and isolated.
 - 3) The isolation and locking out of that energy source will completely de-energize and deactivate the machine or equipment.
 - 4) The machine/equipment is isolated from that energy source and locked out during servicing or maintenance.
 - 5) A SINGLE LOCK-OUT DEVICE will achieve a locked-out condition.
 - 6) The lock-out device is under the EXCLUSIVE CONTROL of the authorized employee performing the servicing or maintenance.
 - 7) The servicing or maintenance does not create hazards for other employees.
 - 8) The employer in utilizing this exception has had no accidents involving the unexpected activation or re-energization of the machine/equipment during servicing or maintenance.
 - b. Complex utilities distribution systems are systems such as High Voltage, Steam, Hot Water, or Chilled Water where there are multiple feeds, loops and backfeed possibilities and where the required maintenance or installation work scope is variable. For these types of systems, LOTO procedures **MUST** be written prior to each job once the scope of work has been defined. The procedure is then to be reviewed with all employees involved. **All other provisions of this document apply to these systems.**

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2. Procedures for existing equipment shall be written by the appropriate personnel with input from maintenance personnel and engineering as needed. See Attachment F for an example of the form that should be used, however, alternate forms can be used but will need to contain similar information.
3. For new projects or installations the Project Manager is accountable for initial draft LOTO procedures and interim testing procedures before placing the equipment into service. The appropriate supervisor reviews LOTO procedures and ensures their personnel are trained on the new equipment.
4. For all LOTO work where a control lock and/or an operational lock is being used, whether or not a written procedure is performed under the exceptions in section H.1, the lead authorized employee shall log the equipment being LOTO onto the LOTO Equipment Log. The LOTO Equipment Log is to be kept in each maintenance shop or utility plant operations control room (See Attachment G).
5. The person(s) performing the LOTO, including turnkey contractors, shall fill out one LOTO Employee Control/Transfer Form (See Attachment C) for each piece of equipment or system that is to be worked on. The sheet is to be used before and after the LOTO procedure is executed or if there is a transfer of the LOTO equipment to another authorized employee or if another authorized employee joins the work in progress. During individual lockout the sheet should be kept with the equipment and during group lockout the sheet should be kept with the lock box.
6. Applying Lock Out / Tag Out
 - a. Equipment/Systems will be locked out by authorized employees:
 - 1) Locate all energy isolating devices for the particular lines or equipment.
 - 2) Ensure that every stored energy source that can produce a release of hazardous energy has been shut down and is ready for lockout/tagout.
 - 3) Place locks and tags on all stored energy isolating devices that are capable of accepting a lockout device. Tags cannot replace locks. When a lockout device cannot be used, tagout may be used to indicate that operation or attempted operation of the equipment is prohibited. Tags will be attached securely at the same location that the lockout device would have been attached. Where a tag cannot be attached directly to the energy isolating device, the tag will be attached as close as possible and so that it would be immediately obvious to anyone attempting to operate the equipment.
 - b. Prior to starting work on equipment that has been locked out or tagged out, the lead authorized employee shall verify that isolation and de-energization of the equipment has been accomplished and communicate to all personnel involved in the task that this has been accomplished.
 - 1) PPE should be worn during verification that would protect the employee as if the hazardous energy were still present.
 - 2) Once the employee has verified that the hazardous energy is no longer present, PPE can be adjusted for the tasks to be performed.
 - c. Group Lockout/Tagout:
 - 1) Every person performing work on locked out or tagged out equipment should install their own lock or tag device (including turnkey contractors).
 - 2) The Team Leader/Work Leader will ensure that everyone performing maintenance on de-energized equipment affixes their personal lock and tag to the system they are working on.
 - 3) When an energy isolating device cannot accept multiple locks or tags, a multiple lockout or tagout device may be used. If lockout is used, the Team Leader/ Work Leader or his/her designee will verify all lockout locks (numbered locks) have been placed on the equipment, then place the keys to all locks in a lockout box that allows the use of multiple locks to secure it. If needed, multiple lock boxes can be used but control must be maintained through the primary lock box.

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- 4) All personnel performing work on locked out or tagged out equipment will then use his/her own lock to secure the group lockout box(es).
- 5) Each person will remove his/her lock from the group lockout box after finishing work tasks. In the case where work will continue into the next work day and no persons will be performing work on the equipment prior to that, locks may remain on the equipment. If a lock is removed for any reason, it must be reapplied if the employee returns to the work area or returns on the next workday to continue work tasks. The control lock will remain on the group LOTO box while the work is still in progress.
- d. If the equipment or system is not capable of being physically locked out due to lack of disconnects, valving, or other methods, then all energy sources must be physically removed from the equipment or system. Examples of removing energy sources may be by blanking, capping, blocking, draining, discharging, etc. Tags should be placed at every location where energy sources have been removed.

7. Removing Lock Out / Tag Out

- a. Unless supervisor approval is required prior to start up, the authorized employee will determine that LOTO is ready to be cleared.
- b. The work area must be inspected to ensure that nonessential items have been removed and machine or equipment components are operationally intact.
- c. The work area must be checked to ensure that all employees have been safely positioned or removed, and employees must be informed that the lockout or tagout devices are to soon be removed.
- d. After lockout or tagout devices have been removed and before a machine or equipment is re-energized, affected employees must be notified that the lockout or tagout device(s) have been removed.
- e. Each personal lockout or tagout device will be removed only by the authorized employee who applied it unless the authorized employee who applied the lockout or tagout device is not available to remove it. In this case it may be removed under the direction of their supervisor. Prior to removal, the supervisor must, at least:
 - 1) Verify that the authorized employee who applied the device is not at the facility,
 - 2) Make all reasonable efforts to contact the authorized employee to inform him/her that his/her lockout or tagout device has been removed, and
 - 3) Ensure that the authorized employee is aware that his/her device has been removed before he/she resumes work at that facility.
- f. When work is completed on the equipment/system the Shift Supervisor or FMD Supervisor will review the LOTO Employee Control/Transfer Form to ensure that all individuals are signed off on the LOTO.

I. Periodic Inspections

1. Periodic inspection of all LOTO procedures should be performed at least annually to ensure that any deviations or inadequacies are identified and corrected.
2. The periodic inspection must include a review between the supervisor or an authorized employee as the inspector and another authorized employee using the LOTO procedure. The inspector will certify that the periodic inspections have been performed. The certification must identify the machine or equipment on which the LOTO procedure was being utilized, the date and time of the inspection, the employees included in the inspection, the person performing the inspection, whether the procedure worked or if action is needed to make corrections or if the authorized employee performing the work requires retraining on the procedure. (See Attachment D)
3. The appropriate supervisor needs to keep and log the inspections and review if all procedures have been inspected at least annually.

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J. Training/Retraining. The supervisor (or other authorized/assigned employee) will coordinate training to ensure that the purpose and function of the energy control program are understood by employees, and that they acquire the knowledge and skills required for the safe application, use and removal of the energy controls. The training must include the following:

1. 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.
2. Each *affected employee* must be instructed in the purpose and use of the energy control procedure.
3. *All other employees* must be instructed about the procedure, and about the prohibition on restarting or reenergizing machines or equipment which are locked out or tagged out, if their work operations are or may be in an area where energy control procedures may be utilized.
4. *All new employees* must be trained on LOTO policies and procedures prior to commencing work.
5. Retraining must 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 present a new hazard, or when there is a change in energy control procedures. Additional retraining must also be conducted whenever a periodic inspection (see the section Periodic Inspection) reveals--or whenever the employer has reason to believe that there are deviations from or inadequacies in the employee's knowledge or use of the energy control procedures. The retraining must reestablish employee proficiency and introduce new or revised control methods and procedures, as necessary. FMD must certify that employee training has been accomplished and is being kept up to date; certification must contain each employee's name and dates of training.

K. Records Retention

1. All completed LOTO Written Procedure Forms, Employee Control/Transfer Forms, LOTO Equipment Log, and Periodic Inspection Forms shall be retained for one year from their use.
2. Training records will be retained per the Duke University standard.

L. References

1. OSHA Standard 29 CFR 1910.147
2. Duke Safety Manual, Chapter 3, Section 1

M. Attachments

1. Attachment A – Lock Requirement
2. Attachment B – Tagout Tag Requirement
3. Attachment C – Employee Control/Transfer Form Template
4. Attachment D – Periodic Inspections of Written Procedures Template
5. Attachment E – Non-LOTO Locks and Tags Requirement
6. Attachment F – Written LOTO Procedure Template
7. Attachment G – LOTO Equipment Log Template
8. Attachment H - LOTO Process Checklist

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Attachment A - Lock Requirement

The following is an example of an approved lockout device.



NAME:
John Doe

CONTACT#:
555-1234
Radio #123

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Attachment B – Tagout Tag Requirement



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Attachment D –Periodic Inspections of Written Procedures Template

Building: _____ Department: _____ Date: _____

Inspector Name: _____ Phone: _____

Equipment

Employees INCLUDED IN THE INSPECTION.

| Name | Duke ID# | Organization |
|------|----------|--------------|
| | | |
| | | |
| | | |
| | | |
| | | |
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| | | |

INSPECTION OBSERVATIONS

1. Is the written procedure being followed? Yes/No
2. Does the written procedure effectively isolate the energy? Yes/No
3. Do the employees involved know their responsibilities under the procedure? Yes/No
4. Are any changes required for the written procedure? Yes/No

If yes, what is the corrective action: _____

I certify that an “Authorized Employee” has completed this inspection.

Inspector Signature: _____ Date: _____

Area Supervisor Signature _____ Date: _____

Retain this form on file as verification of inspection per Records Retention policy.

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Attachment E - Non-LOTO Locks and Tags Requirement

This is an example of the proper lock and tag to utilize for equipment protection, process configuration control, or equipment clearance.

****Important**:** A yellow lock is not to be used for Lockout/Tagout situations for the control of hazardous energy during servicing or maintenance of equipment in which the unexpected energizing or start up of the machines or equipment, or release of stored energy could cause injury to employees. Never use a yellow lock in conjunction with or to temporarily replace a red lock.



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Attachment F - Written LOTO Procedure Template

NOTE: This procedure is subject to change. Do not use a printout for reference without confirming the content with the latest revision on Duke's FMD server.

Compliance

1. All employees must comply to the restrictions and limitations during lockout/tag out of equipment.
2. Only Authorized Employees are to perform the lockout procedure.
3. Area PPE required must be worn in addition to any Task PPE listed in this procedure.
4. ***Violation of the lockout / tag out program or this procedure will result in disciplinary action.***

Purpose

This procedure establishes the minimum requirements for the lockout of the energy sources listed below and shall be followed in order written.

| Duke University Facilities Management Department | | DRAFT Lockout-Tagout Procedure (8/21) | |
|-----------------------------------------------------|--|-----------------------------------------------------------------------------------------------------------------------|--|
| Revision #: | | Equipment ID #: | |
| Revision Date: | | | |
| Revised By: | | | |
| Checked by: | | | |
| Originator: | | | |
| Work Order #: | | | |
| Equip Description: | | | |
| Facility/Location: | | | |
| | | | |
| | | | |
| | | Please contact your supervisor or safety manager if you have any questions relating to this procedure prior to using. | |

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NOTES:

This procedure should be considered current if attached to a Work Order or printed directly from G:\Safety\Safety Procedures\LOTO Procedures on the FMD server. Copies obtained from any other source(s) should not be used or should be verified that it is the current revision. Examples of Energy Types could be mechanical, hydraulic, pneumatic (air), water (fluids), steam, electric, thermal (temperature), chemical or other energy that is used to put a piece of equipment into operation. Examples of Magnitude could be PSI.

Lockout Steps

| Step | Energy Type | Magnitude | Action | PPE Required | Lock # (Optional) |
|------|-------------|-----------|--------|--------------|-------------------|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
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| Startup Procedure | | | | | |
|-------------------|-------------|-----------|--------|-------------------|--------------|
| Step | Energy Type | Magnitude | Action | Lock # (Optional) | PPE Required |
| S1 | | | | | |
| S3 | | | | | |
| S4 | | | | | |
| S5 | | | | | |
| S6 | | | | | |
| S7 | | | | | |
| S8 | | | | | |
| S9 | | | | | |

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| S10 | | | | | |

**PLEASE CONTACT YOUR SUPERVISOR OR SAFETY SPECIALIST IF YOU HAVE ANY QUESTIONS RELATING TO THIS
PROCEDURE PRIOR TO USING**

Authorized Employees Use Acknowledgement
(Attach additional sheet if necessary)

| Signature | Duke ID | Signature | Duke ID |
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Revision History

| Revision | Description | Effective Date |
|----------|-----------------------------|----------------|
| 3 | LOTO Written Safety Program | 1 Aug 2018 |



Duke University - Facilities Management Department
Safe Work Practice Policies

LOCKOUT-TAGOUT (LOTO) PROGRAM

Applicable to: All FMD Organizations

Date Effective: 1 August 2018

Issue No.: 1 **Revision:** 3

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Attachment G - LOTO Equipment Log for Control and Operational Locks

Log is to be kept in each maintenance shop or utility plant operations control room

| Equipment Name | Equipment Location | Lead Authorized Employee Name | Date Applied | Date Removed |
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Revision History

| Revision | Description | Effective Date |
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| 3 | LOTO Written Safety Program | 1 Aug 2018 |



Duke University - Facilities Management Department

Safe Work Practice Policies

LOCKOUT-TAGOUT (LOTO) PROGRAM

Applicable to: All FMD Organizations

Date Effective: 1 August 2018

Issue No.: 1

Revision: 3

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Attachment H - LOTO Process Checklist

- ___ 1. Task Assigned with LOTO required.
- ___ 2. Written LOTO procedure required?
 - a. NO – **All** statements in Section G.1.a **must** apply.
 - b. YES – See if written procedure already exists
- ___ 3. Does written LOTO procedure already exist?
 - a. NO – Work with supervisor and/or engineering to write procedure.
 - b. YES – Review procedure with all employees involved in work. If clarification needed, direct questions to supervisor and/or engineering.
- ___ 4. Has written LOTO procedure been inspected in the past 12 months?
 - a. NO – Notify supervisor that an inspection needs to be performed with a supervisor or another Authorized Employee.
 - b. YES – Periodic Inspection not required.
- ___ 5. List equipment/system to be LOTO onto LOTO Equipment Log located in shop or control room.
- ___ 6. Make sure all needed LOTO equipment is available.
- ___ 7. Notify all Affected Employees.
- ___ 8. At job site, Sign On to Employee Control/Transfer form.
- ___ 9. With proper PPE, perform LOTO.
 - a. Everyone involved must use their personal-issued LOTO lock.
 - b. Lock box(es) are to be used if number of energy control points and/or number employees require it.
 - c. If Periodic Inspection required, then Inspector should only observe procedure and complete Periodic Inspection form.
- ___ 10. Test LOTO effectiveness by trying to start equipment, checking for voltage, pressure, etc.
- ___ 11. Once work is complete, check to ensure all tools are removed and equipment is ready for start-up.
- ___ 12. Notify all Affected Employees.
- ___ 13. Remove final LOTO.
- ___ 14. At job site, Sign Off on Employee Control/Transfer form.
- ___ 15. Log off equipment/system on LOTO Equipment Log located in shop or control room.
- ___ 16. Turn in any written LOTO procedures with employees listed, Employee Control/Transfer forms or Periodic Inspection forms to supervisor.

Revision History

| Revision | Description | Effective Date |
|----------|-----------------------------|----------------|
| 3 | LOTO Written Safety Program | 1 Aug 2018 |