1.0 POLICY
1.1 It is the policy of University of Delaware that any individual engaging in the maintenance, repairing, cleaning, servicing, or adjusting of power-driven machinery or equipment on University of Delaware property will abide by the procedures outlined in this document. These procedures are designed to meet or exceed applicable OSHA standards for safe work practices.
1.2 Lockout is a first means of protection, warning tags only supplement the use of locks. Tags alone may be used only when the application of a lock is not practically feasible and with approval of the appropriate supervisor.

2.0 PURPOSE
To ensure that all individuals on the University of Delaware campus are protected from accidental or unexpected contact with energy sources, that might be injurious to the body. These energy sources include electrical, mechanical, hydraulic, pneumatic, chemical, thermal, and gravity. Individuals may come in contact with these forces during the course of their daily work activities such as repairing, cleaning, servicing, or adjusting energy containing equipment.

3.0 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 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 include performing servicing or maintenance covered under this section.

Capable of being locked out. An energy isolating device is capable of being locked out if it has a hasp or other means of attachment to which, or through which, a lock can be affixed, or it has a locking mechanism built into it. Other energy isolating devices are 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.

**Contractors.** Any individual or company brought onto campus under the direct or indirect management of the Facilities organization or their agent for the purposes of performing work which could result in contact with, or have reason to manipulate, any energy source on campus.

**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 of a circuit can be disconnected from all ungrounded supply conductors, and, in addition, no pole can be operated independently; a line valve; a block; and any similar device used to block or isolate energy. Push buttons, selector switches and other control circuit type devices are not energy isolating devices.

**Energy source.** Any source of electrical, mechanical, hydraulic, pneumatic, chemical, thermal, gravity or other energy.

**Group lockout.** Where the service or repair of equipment requires multiple energy isolation points, the use of multiple keyed-alike locks (Group Locks) may be used to facilitate the process. Every lock in a set of group locks is keyed-alike and there is only one key for a particular set of group locks. When this group lock key for the series of keyed-alike locks is placed in a group lockout box and secured by an employee’s personal safety lock, they are in effect affixing their personal lock to all of the multiple energy isolation points because their personal lock controls the only key to that particular series of group locks. Shops which experience the need to lockout multiple energy isolation points as part of locking out a system(s) or for shutdown work, may wish to have multiple sets of group locks, e.g., for steam, water, air, electrical, etc.

**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, and steam distribution systems.

**Lockbox.** A container which is used in group lockout systems to secure the single key to a series of keyed-alike locks that are being used to secure multiple energy isolation points. The lockbox design facilitates the ability of multiple individuals or crews to work under the protection of a group lockout by affixing their personal lock to the group lockbox.
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 the safe position and prevent the energizing of a machine or equipment. Included are blank flanges and bolted slip blinds.

Multiple lock hasps. A lockout device that enables multiple people to affix their personal safety locks to a single energy isolation point.

Normal production operations. The utilization of a machine or equipment to perform its intended production function.

Personal safety lock. Every employee assigned to work on a piece of equipment requiring lockout will be issued one or more uniquely-keyed personal safety locks. These locks are registered to an individual and are to be used only for safety lockout applications. The concept of 1-key/1-lock for employee personal safety locks is the foundation of the security a successful lockout procedure. These locks are marked with the employee’s name for easy field identification.

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 making adjustments or tool changes, where the employee may be exposed to the unexpected energization or startup of the equipment or release of hazardous energy.

Shop safety lock. When an employee determines that the repairs are going to be delayed (e.g., awaiting parts) or they are leaving the end of their assigned shift and the work is incomplete then they should remove their personal safety lock and replace it with a shop safety lock. Shop safety locks are registered to the shop and are individually-keyed. When a shop safety lock is placed on a piece of energy isolation point for a piece of equipment, the reason for its use needs to be logged in the shop lockout book for reference for other employees who may be assigned to finish the job at a future date (e.g., when parts are available).

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 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.

4.0 RESPONSIBILITIES

4.1 FACILITIES DEPARTMENT
a. Ensure that the lockout/tagout procedures are in compliance with OSHA requirements.
b. Provide biennial training of the lockout/tagout procedure and an annual review for affected and authorized employees.
c. Inspect energy control procedures and practices at least annually to ensure that general and specific lockout/tagout procedures are being followed.
   i. Inspections must be carried out by persons other than those employees directly utilizing energy control procedures.
   ii. Inspections will include a review between the inspector and each authorized employee, of that employee’s responsibilities under the energy control procedure being inspected.
   iii. Certify that periodic inspections have been performed (see RECORDKEEPING and Attachment B LOCKOUT/TAGOUT INSPECTION FORM)

4.2 DIRECTORS and ASSISTANT DIRECTORS
a. Ensure that each supervisor and manager adheres to procedures.

4.3 MANAGERS and SUPERVISORS
a. Identify each UD crew member that engages in work requiring locking/tagging out of energy sources to ensure understanding and adherence to adopted procedures.
b. Ensure that each UD employee receives training in energy control procedures prior to servicing the machinery or equipment.
c. Provide and maintain necessary equipment and resources, including safety locks, tags, lockout devices and/or other similarly effective means to isolate and lockout energy sources.
d. Where possible, perform a pre-use examination of new or revised equipment, machinery, or operations that require the use of lockout/tagout devices during servicing, maintenance, or repair. Ensure that lockout isolation points of this new or modified equipment are identified and that employees are instructed on the proper lockout process regarding this equipment.
e. Whenever outside servicing personnel are to be engaged in activities covered by the scope and application of this standard, managers, supervisors, or project managers and the outside employer shall inform each other of their respective lockout or tagout procedures. Additionally, the managers and supervisors shall ensure that his/her employees understand and comply with the restrictions and
prohibitions of the outside employer's energy control program if they impose requirements above this program.

4.4 EMPLOYEES
a. Adhere to specific safety Lockout/Tagout procedures as outlined in this document for all tasks that require the use of lockout/tagout procedures as defined.
b. Insure that they have sufficient safety lockout equipment (safety locks, tags, personal protective equipment, specialized lockout devices) with them on the job to safely de-energize and secure equipment per procedures before it is worked on.

4.5 CONTRACTORS
a. Adhere to specific safety Lockout/Tagout procedures as outlined in this document for all tasks that require the use of lockout/tagout procedures as defined.
b. Insure that they have sufficient safety lockout equipment (safety locks, tags, personal protective equipment, specialized lockout devices) with them on the job to safely de-energize and secure equipment per procedures before it is worked on.
c. Submit a LO/TO points list to the Project Manager and cognizant Maintenance & Operations Shop Manager for their review and approval. This request can be in the form of an email (See Attachment F) and must be submitted for the initial identification of LO/TO points (boundaries), and each time a revision, addition or removal of any point is necessary.

5.0 BASIC SAFETY LOCKOUT/TAGOUT PROCEDURES
5.1 PREPARATION FOR LOCKOUT/TAGOUT
a. Make a survey to locate and identify all isolating devices to be certain which switch(es), valve(s), or other energy isolating devices apply to the equipment to be locked and tagged out. More than one energy source (electrical, mechanical, stored energy, or others) may be involved.
b. Review shop Lockout/Tagout files to determine if Equipment Specific LO/TO Instructions have been created for the asset/equipment that you will be servicing. If this document is on file, enter required information and signoff as determine by your Shop Manager.
c. If Equipment Specific LO/TO Instructions have not been issued, create new instructions using Attachment C, (or) record lock out points in a Log Entry on the associated work order.
d. All LO/TO’s exceeding 48 hours in duration, or as directed by the Shop Manager, will be recorded in the Shop LO/TO Book which will be accessible to all Maintenance & Operations personnel, and available in the Operations Center on a 24x7 basis. See Attachment E.
e. (Sub)Contractors shall submit a list of all lock out points to the project manager prior to the start of work on any UD equipment or system. This list will be maintained by the contractor and available for audit by UD personnel.
5.2 INSTALLATION SEQUENCE FOR LOCKOUT/ TAGOUT

a. Issue Utility Outage Request Form for maintenance activities where lockout will impact utility services. Notify affected employees that a lockout/tagout process is going to be utilized and the reason for the lockout. The authorized employee shall know the type and magnitude of energy that the machine or equipment utilizes and shall understand the hazards related to the lockout.

b. If the machine or equipment is operating, shut it down by the normal stopping procedure (depress stop button, open toggle switch, etc.).

c. Don appropriate PPE and operate the switch, valve, or other energy isolating device(s) so that the equipment is isolated from its energy source(s). Stored energy (such as that in springs, elevated machine members, rotating flywheels, hydraulic systems, and air, gas, steam, or water pressure, etc.) must be dissipated or restrained by methods such as repositioning, blocking, bleeding down, etc.

d. Lockout/Tagout the energy isolation devices with assigned individual lock(s) and tag(s). All UD personnel shall use the tags 1 and/or 2 as designated in Attachment D.

   i. Tag-1 (reasuable) shall be used for daily lockouts required for routine maintenance activities.

   ii. Tag-2 (two-part) shall be used for multi-shift, multi-day lockouts when a Shop LO/TO Book entry is required, or as designated by the Shop Manager. The mechanic should record the tag number in a work order log entry and place the tear-away portion of the tag in his personnel log book, or if it is a Group LO/TO, with the Shop LO/TO Book.

   iii. Tag-1 can be used in combination with Tag-2 if the mechanic is concerned that Tag-2 might become damaged by the environment or otherwise compromised. If the two tags are used together, the tag number from Tag-2 must be hand written onto Tag-1, and this tag must then be discarded after the LO/TO is removed.

e. All (Sub) Contractor personnel must use Tag-3 as designated in Attachment D. Contractors can also utilize tags as required by their company Safety Programs in combination with Tag-3, however Tag-3 must be prominently displayed at all times. The contractor shall write down his/her name, company and phone number on the back of the top (hung) portion of the tag. The bottom (tear-away) portion of the tag should be placed in a central location designated by the project.

f. Enter the required LO/TO information into the Shop LO/TO Book as required. Contractors must record and maintain all LO/TO information as part of their project requirements.
g. After ensuring that no personnel are exposed, and as a check on having disconnected the energy sources, verify that it is de-energized by operating the push button or other normal operating controls to make certain the equipment will not operate. Use voltage meter to ensure the absence of current before performing maintenance routines. Be aware that some control current may remain energized within electrical disconnect boxes. CAUTION: Return operating control(s) to neutral or off position after the test.

h. The equipment is now locked out or tagged out.

i. Wear appropriate level of PPE to conduct repair work.

5.3 RESTORING MACHINES OR EQUIPMENT TO NORMAL OPERATIONS

a. After the servicing and/or maintenance is complete and equipment is ready for normal operations, check the area around the machines or equipment to ensure that no one is exposed.

b. After all tools have been removed from the machine or equipment, guards have been reinstalled and employees are in the clear, remove all lockout or tagout devices. Operate the energy isolating devices to restore energy to the machine or equipment.

c. Wear appropriate PPE to re-energize equipment.

5.4 GROUP LOCKOUT PROCEDURE: INVOLVING MULTIPLE PERSONS/MULTIPLE ISOLATION POINTS

a. In the preceding steps, if more than one individual is required to lockout or tagout equipment, each shall place his/her own personal lockout/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.

b. If a group lockout is used, a group safety lock key for the set of group locks may be used to lockout multiple energy isolation points. The key for the group locks is placed in a lockout box that is designed to allow the use of multiple locks to secure it. Each employee will then use his/her own lock to secure the group lock box. 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. When all personal locks have been removed, the machinery may be restored to normal operation (see section 5.3 of this procedure).
5.5 TEMPORARY REMOVAL OF LOCKOUT/TAGOUT DEVICES

a. In situations where lockout/tagout devices must be temporarily removed from the energy isolating device and the machine or equipment energized to test or position the machine, equipment or component thereof, the following sequence of actions will be followed:
   i. Remove non-essential items and ensure that machine or equipment components are operationally intact.
   ii. Notify affected employees that lockout/tagout devices have been removed and ensure that all employees have been safely positioned or removed from the area.
   iii. Have employees who applied the lockout/tagout devices remove the lockout/tagout devices.
   iv. Wear appropriate PPE to re-energize equipment.
   v. Energize and proceed with testing or positioning.
   vi. De-energize all systems and reapply energy control measures in accordance with section 5.2 of these procedures.

5.6 LOCKOUT/TAGOUT DEVICE REMOVAL PROCEDURE

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

b. **Exception to paragraph (5.6a):** When the authorized employee who applied the lockout or tagout device is not available to remove it, that device may be removed under the direction of the employer, provided that specific procedures and training for such removal have been developed, documented and incorporated into the employer's energy control program. The employer shall demonstrate that the specific procedure provides equivalent safety to the removal of the device by the authorized employee who applied it.

c. The specific SAFETY LOCK REMOVAL procedure steps are:
   i. Verification by the employer that the authorized employee who applied the device is not at the facility:
   ii. Making all reasonable efforts to contact the authorized employee to inform him/her that his/her lockout or tagout device has been removed:
   iii. Authorization by the Director/Assistant Director of Maintenance and Operations; and
   iv. Ensuring that the authorized employee has the knowledge that their lock has been removed in their absence before he/she resumes work at that facility.
5.7 MAINTENANCE REQUIRING UNDISRUPTED ENERGY SUPPLY

a. Where maintenance, repairing, cleaning, servicing, adjusting, or setting up operations cannot be accomplished with the prime mover or energy source disconnected, such operations may only be performed under the following conditions:

i. The operating station (e.g. external control panel) where the machine may be activated must at all times be under the control of a qualified operator.

ii. All participants must be in clear view of the operator or in positive communication with each other.

iii. All participants must be beyond the reach of machine elements which may move rapidly and present a hazard.

iv. Where machine configuration or size requires that the operator leave the control station to install tools, and where there are machine elements which may move rapidly, if activated, such elements must be separately locked out.

v. During repair procedures where mechanical components are being adjusted or replaced, the machine shall be de-energized or disconnected from its power source.

5.8 ENERGY ISOLATION DEVICE HARDWARE

a. Safety lock types

i. **Personal Safety Lock:** (1key/1-lock) Every employee assigned to work on a piece of equipment requiring lockout will be issued one or more uniquely-keyed personal safety locks. These locks are registered to an individual and are to be **used only for safety lockout applications.** The concept of 1-key/1-lock for employee personal safety locks is the foundation of the security a successful lockout procedure. These locks are marked with the employee’s name for easy field identification. These locks should be color-coded by shop when possible. See Attachment A

ii. **Shop Safety Lock:** (1-key/1-lock) When an employee determines that the repairs are going to be delayed (e.g., waiting parts) or they are leaving the end of their assigned shift and the work is incomplete, then they should remove their personal safety lock and replace it with a shop safety lock. Shop safety locks are registered to the shop and are individually-keyed. When a shop safety lock is placed on an energy isolation point for a piece of equipment, the reason for its use
needs to be logged in the shop lockout book. This book serves as a reference for other employees who may be assigned to finish the job at a future date (e.g., when parts are available).

iii. Group Safety Lock: (1-key/multiple locks) Where the service or repair of equipment requires multiple energy isolation points, the use of multiple keyed-alike locks (Group Locks) may be used to facilitate the process. Every lock in a set of group locks is keyed-alike and there is only one key for a particular set of group locks. When this group lock key for the series of keyed-alike locks is placed in a group lockout box and secured by an employee’s personal safety lock, they are in effect affixing their personal lock to all of the multiple energy isolation points because their personal lock controls the only key to the particular series of group locks. Shops which experience the need to lockout multiple energy isolation points as part of locking out a system(s) or for shutdown work, may wish to have multiple sets of group locks, e.g., for steam, water, air, electrical, etc.

5.9 MISCELLANEOUS HARDWARE

a. Safety lock hasps: hardware used which allows multiple employees to affix their personal safety locks to a single isolation lockout point. Specific make and model of personal lock is attached.

b. Group lockout boxes: A box which is used to secure the group lock key to a series of group safety locks that are being used in the field to lockout multiple isolation points. The specific make and model of the Group Lockout Box used by Facilities is attached.

c. Do Not Operate Tags: A tag used to indicate an energy isolation point for lockout applications. The specific make and model of authorized Facilities tags is attached.

6.0 EMPLOYEE TRAINING

UD Employees will receive lockout/tagout training from qualified training personnel. Note: training requirements outlined in 29CFR [Specifically 1910.147 (c)(7)(i),(ii), & (iii)].

7.0 RECORDKEEPING

7.1 INSPECTION RECORDS

a. Facilities will maintain inspection records in accordance with 4.1C.ii of this document.
b. Facilities will complete and maintain all LOCKOUT/TAGOUT INSPECTION FORMS.
7.2 TRAINING RECORDS
   a. Training records will be maintained by the Facilities Department. Training records will include an 
      outline of topics covered and a sign in sheet of those employees attending.

8.0 REFERENCE

Code of Federal Regulations (CFR), Title 29, Part 1910, Section 147, CFR Title 29, Part 1910.147 Appendix
A, UD Safety and Security Policy 7-12.

Effective Date: 1/1/13
Approved by: B.L. Schuster

Attachments:

   A. Sample Hardware for Safety
   B. UD Lockout/Tagout Inspection Form
   C. Equipment Specific Lockout/Tagout Instruction Form
   D. Approved Lockout/Tagout Tags
   E. Shop Lockout/Tagout Book Index Form
   F. Sample Email Request For Contractor Lockout/Tagout Points
ATTACHMENT A
APPROVED HARDWARE FOR SAFETY LOCKOUT

SAFETY LOCKS: PERSONAL

**Padlock, Xenoy, Red, Length 1 3/4 in**

- **Grainger Item #**: 4FG03
- **Price (ea.)**: $15.26
- **Brand**: MASTER LOCK
- **Mfr. Model #**: 410RED
- **Ship Qty.**: 1
- **Ship Weight (lbs.)**: 0.24
- **Usually Ships****: Today
- **Catalog Page No.**: 2285

SAFETY LOCKS: SHOP SAFETY LOCK

**Padlock, Key Type Different, Red, 2 Keys**

- **Grainger Item #**: 4RD97
- **Price (ea.)**: $14.91
- **Brand**: MASTER LOCK
- **Mfr. Model #**: 6835RED
- **Ship Qty.**: 1
- **Ship Weight (lbs.)**: 0.3
- **Usually Ships****: Today
- **Catalog Page No.**: 2284
ATTACHMENT A

LOCK HASPS:

Lockout Hasp

<table>
<thead>
<tr>
<th>Grainger Item #</th>
<th>1D877</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price (ea.)</td>
<td>$66.55</td>
</tr>
<tr>
<td>Brand</td>
<td>BRADY</td>
</tr>
<tr>
<td>Mfr. Model #</td>
<td>65889</td>
</tr>
<tr>
<td>Ship Qty</td>
<td>1</td>
</tr>
<tr>
<td>Sell Qty (Will Call)</td>
<td>1</td>
</tr>
<tr>
<td>Ship Weight (lbs.)</td>
<td>3.8</td>
</tr>
<tr>
<td>Usually Ships**</td>
<td>Today</td>
</tr>
<tr>
<td>Catalog Page No</td>
<td>2286</td>
</tr>
</tbody>
</table>

GROUP LOCKOUT BOXES:

Lock Box

<table>
<thead>
<tr>
<th>Grainger Item #</th>
<th>1D877</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price (ea.)</td>
<td>$66.55</td>
</tr>
<tr>
<td>Brand</td>
<td>BRADY</td>
</tr>
<tr>
<td>Mfr. Model #</td>
<td>65889</td>
</tr>
<tr>
<td>Ship Qty</td>
<td>1</td>
</tr>
<tr>
<td>Sell Qty (Will Call)</td>
<td>1</td>
</tr>
<tr>
<td>Ship Weight (lbs.)</td>
<td>3.8</td>
</tr>
<tr>
<td>Usually Ships**</td>
<td>Today</td>
</tr>
<tr>
<td>Catalog Page No</td>
<td>2286</td>
</tr>
</tbody>
</table>
ATTACHMENT B

UD LOCKOUT/TAGOUT INSPECTION FORM

1. Inspection Date:___________________      Maximo WO#

2. Inspector (Printed Name/Signature):__________________________/___________________

3. Employee(s) Inspected (Printed/Signature):_____________________/___________________
   ___________________/___________________
   ___________________/___________________
   ___________________/___________________

5. Machine/equipment on which the energy control procedure was being utilized:
   ____________________________________________________________________________
   ____________________________________________________________________________
   ____________________________________________________________________________
   ____________________________________________________________________________

   YES  NO Has employee tested the effectiveness of his/her lockout/tagout devices?

   YES  NO Have all procedures been followed?
   YES  NO Were tagouts legible and clearly displayed?

6. Comments/Observations:______________________________________________________
   ____________________________________________________________________________
   ____________________________________________________________________________
   ____________________________________________________________________________
   ____________________________________________________________________________
   ____________________________________________________________________________
   ____________________________________________________________________________
   ____________________________________________________________________________
ATTACHMENT C

EQUIPMENT SPECIFIC LOCKOUT/TAGOUT INSTRUCTION FORM

---

**University Of Delaware “Equipment Specific” Lockout/Tagout Instructions**

<table>
<thead>
<tr>
<th>Equipment/Asset Name:</th>
<th>Supervisors Name:</th>
<th>Building or Area:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Shop:</th>
<th>Supervisors Phone#:</th>
<th>WO #:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LOTO BY? Mechanics Name &amp; Unit #:</th>
<th>Number of Energy Sources:</th>
<th>Instructions Issued Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date to be Reenergized:</th>
<th>(List Below)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**General Instructions:**

1. Provide verbal notification of LOTO to affected employees.
2. Shut down equipment using standard stopping instructions.
3. Isolate all energy sources and apply devices for each energy source.
4. Release all residual and stored energy. Follow any special instructions below.
5. Attach warning tags with names of employee and WO# at each lock point.
6. Verify all sources have been de-energized.

**Specific Instructions:** (page _ of _)

---

<table>
<thead>
<tr>
<th>Energy Source</th>
<th>Location (on or near unit)</th>
<th>LOTO Method</th>
<th>LOTO Device</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**LOTO Removal Instructions:**

1. Signoff/Approval: __________________________
2. Date: __________________________
3. __________________________

---

Page 15 of 18
ATTACHMENT D

APPROVED LOCKOUT/TAGOUT TAGS

Tag 1, Tag 2, & Tag 3
## ATTACHMENT E

### SHOP LOCKOUT/TAGOUT BOOK INDEX FORM

<table>
<thead>
<tr>
<th>BUILDING</th>
<th>WORK ORDER Number</th>
<th>ASSET DESCRIPTION</th>
<th>PURPOSE OF LOCKOUT / TAGOUT</th>
<th>TAG NUMBER</th>
<th>TECH'S NAME</th>
<th>TECH'S LOCK ID</th>
<th>DATE APPLIED</th>
<th>DATE REMOVED</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Attachment X
ATTACHMENT F

SAMPLE EMAIL REQUEST FOR CONTACTOR LOCKOUT/TAGOUT POINTS

From: Schuster, Brian
Sent: Wednesday, December 19, 2012 8:54 AM
To: Schuster, Brian
Subject: FW: (SAMPLE) LO/TO Information

From: Murphy, Randy
Sent: Tuesday, November 27, 2012 4:09 PM
To: Schuster, Brian
Subject: RE: (SAMPLE) LO/TO Information

Project Manager & all M&O Shop Managers,

A total of 3 initial lockout/tagout points (boundaries) have been established for the Chilled Water Project #155123 and are identified as follows:

POINT No.: 1
BUILDING/AREA: Laird Utility Plant
SYSTEM/ASSET: Chill water
ENERGY TYPE: Water @ 75 psi
BOUNDARY TYPE: Valve
FIELD LOCATION: North Valve pit
LO/TO METHOD: Close valve and lock
LO/TO DEVICE: chain and padlock
APPLY/REMOVE: Jan 4 2013 / remove May 2013
NOTES:

POINT No.: 2
BUILDING/AREA: Laird Utility Plant
SYSTEM/ASSET: Chill water secondary pump #1
ENERGY TYPE: 480 VAC
BOUNDARY TYPE: Disconnect at Pump
FIELD LOCATION: Next to pump #1
LO/TO METHOD: Secure disconnect switch with padlock
LO/TO DEVICE: Padlock and tag
APPLY/REMOVE: Jan 4 2013 / remove May 2013
NOTES:

POINT No.: 3
BUILDING/AREA: Laird Utility Plant
SYSTEM/ASSET: Chill water secondary pump #2
ENERGY TYPE: 480 VAC
BOUNDARY TYPE: Disconnect at Pump
FIELD LOCATION: Next to pump #2
LO/TO METHOD: Secure disconnect switch with padlock
LO/TO DEVICE: Padlock and tag
APPLY/REMOVE: Jan 4 2013 / remove May 2013
NOTES: Call BAS at x1287 notify on / off