S.O.P. 300.6 – SAFETY, LOCKOUT/TAGOUT OF EQUIPMENT – ELECTRIC SHOP

MAINTENANCE & OPERATIONS SECTION

SEPTEMBER 2020

I) PURPOSE: To establish a lockout/tagout procedure to protect against accidental or inadvertent operation of machines/equipment when such operation could cause injury to personnel, or damage to property.

II) PROCEDURES:

A) General

1) These lockout/tagout procedures shall be followed when servicing and maintaining machines, equipment, and utility systems in which unexpected energization or start-up of machines or equipment, release of stored energy (electrical, chemical, thermal, etc.) could cause injury to employees/patients/visitors, or damage to government/private property. This includes whenever an employee is required to remove or bypass a guard or other safety device or is required to place any part of his body into the point of operation of a machine, or piece of equipment, thereby endangering his/her safety.

2) These lockout/tagout procedures shall be used only by authorized employees who have been properly trained.

3) Lockout devices and tagout devices shall clearly indicate the identity of the employee applying the device, date tag was applied, legible telephone number the individual can be reached at, and the company name under which they are employed.

4) Tags must be legible and understandable by all other employees and must be made of materials which will withstand prevailing environmental conditions without becoming illegible.

5) Employees shall not attempt to operate any switch, valve, or other energy isolating device that has been tagged/ locked out by another employee.

6) Equipment shutdowns shall be accomplished in an orderly manner in order to avoid any additional or increased hazard(s) to employees.

7) Team supervisors shall prepare specific lockout/ tagout instructions for individual machines/equipment when any one of the following conditions exist:

a) The machine or equipment has the potential for stored or residual energy after shutdown which could endanger employees.

b) The machine or equipment has more than one (1) energy source.

c) The locking out of a machine or equipment having a single energy source will not completely deenergize and deactivate that machine or equipment.

d) A machine or equipment having a single energy source is not isolated from that energy source and locked out during servicing or maintenance.

e) Lockout of the machine or equipment cannot be achieved by a single lockout device.

f) The lockout device is not under the exclusive control of the authorized employee performing the servicing or maintenance.

g) The servicing or maintenance creates hazards for other employees.

h) There have been accidents involving the unexpected activation or reenergization of the machine or equipment during servicing or maintenance.

i) Each shop supervisor is responsible for insuring compliance to each procedure as each shop has their own lockout logs and are issued different color locks as followed .Mechanical & Pipefitting unit (Blue), Utility unit (Black), Preventive maintenance unit (Green), Electronics unit (Red).

8) The attached Facilities Management Health Care Group Lockout/Tagout Procedure Form (attachments 1 and 2) shall be used to prepare specific lockout/tagout instructions. These instructions shall be posted on or near the machines/equipment. A copy of these attachments shall be maintained in each shop lockout/tagout log. These logs and procedures shall be reviewed by the supervisors and maintenance control manager at least annually

9) Preparation for Lockout/Tagout:

a) Make a survey to locate and identify all isolating devices to be certain which switch(s), valve(s), or other energy isolation devices apply to the equipment to be locked or tagged out. More than one energy source (electrical, mechanical, or others) may be involved. Refer to any specific lockout/tagout instructions that may be posted on the machine/equipment. Procedures shall be indicated on lockout sheets which are attachments 1 and 2 and posted in lockout log.

10) Sequence of Lockout or Tagout System Procedure:

a) Depending on the impact of the system being shut down, a Utility and Service Impact Permit may need to be filled and signed. Notify all affected employees that a lockout or tagout system is going to be utilized and how the impact will affect their area. Staff in affected areas shall be notified of the scope and expected duration of any utility system shutdowns. Special attention shall be given to notification of clinical staff supervisors in the event utility shutdowns could affect life support, infection control, environmental support, equipment support, or communication systems. Notification of additional staff shall be considered when utility shutdowns impact Medical Center operations, other than in the immediate area of utility interruption. Notification shall be accomplished in accordance with the Utility Interruption Plan contained in the current of the VA Long Beach Healthcare System (VALBHS) Emergency Preparedness Plan. The authorized employee shall know the type and magnitude of energy that the machine or equipment utilizes and shall understand the hazards thereof.

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

c) 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 and/or tagout the energy isolating devices with assigned individual lock(s) and tag(s).

e) After ensuring that no personnel are exposed, and as a check on having disconnected the energy sources, operate the push button or other normal operating controls to make certain the equipment will not operate.

f) CAUTION: Return operating control(s) to "neutral" or "off" position after the test.

g) When isolating a piece of equipment from an electrical energy source, proper PPE must be worn, and a check will be performed with the appropriate meter to confirm there is no energy present before work can begin. This check can be performed at the equipment or the load side of the disconnecting means in which the lock and tag were installed.

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

11) Restoring Machines or Equipment to Normal Operation:

a) After the servicing and/or maintenance is complete and equipment is ready for normal operation, 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) Lock and tag can only be removed by the employee who installed it. If the employee is not available to remove their lock, a valid effort needs to be made to contact the employee. If the employee cannot be reached, than the employee's Supervisor can authorize to remove the lock if needed to include emergency situations.

12) Procedure Involving More Than One Person:

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 device or 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. If lockout is used, a single lock may be used to lockout the machine or equipment with the key being placed in a lockout box or cabinet which allows the use of multiple locks to secure it. Each employee will then use his/her own lock to secure the box or cabinet.

13) Onsite Contractor's Lockout or Tagout Procedure:

a) Contractors that are working in conjunction with shop staff and the system that requires locked or tagged out would present a hazard to both must use our in-house lockout and tagout standard operating procedure, record shall be maintained in shops logs and also the contractors must have a copy in their log. The shop supervisor will insure that all procedures are followed, and the staff and contractors are fully trained in controlling hazardous energy. To eliminate any risks the contractor shall provide their own lock and the shop staff shall also provide a second lock simultaneously, both locks shall be removed only by the two parties who lockout/tagout the system. If one or both the parties are not available upon the system being ready to reenergize the locks or tags maybe removed with the authorization from the Shop Supervisor or Maintenance Control Manager.

b) Contractors that are working on projects inside the medical center that Maintenance and Operations are not involved in must have their lockout and tagout procedure reviewed by the Project Engineer and the Project Engineer will determine if the procedure meet OSHA standard.

If the contractor procedure is determined not to meet OSHA standards, then they will mandate the contractor to use the in-house lockout and tagout procedures. Once the process is determined all records will be maintained in the Design section lockout/tagout log, and the contractor shall maintain their own log. The contractor shall get pre-approval prior to securing any energy source and the Project Engineer will coordinate this process through the Electronic shop supervisor or designee, also insuring all procedures is within the guidelines. The project engineer shall conduct a review of contractor lockout or tagout before and after locks or tags are added or removed.

c) Note: Certification of inspection shall be conducted annually, and records maintained in each lockout/tagout log.

III) TRAINING: All training related to this Standard Operating Procedure shall be conducted in accordance with the current VA Long Beach Healthcare System (VALBHS) Training Policy, 01/07.

IV) REFERENCES:

A) Occupational Safety and Health Administration (OSHA) Standards (29 CFR Part 1910).

V) FOLLOW-UP RESPONSIBILITY: Chief, Maintenance & Operations Section

VI) REVIEW AND REISSUE DATES:

A) Review Date: Annually

B) Reissue Date: September 2021