PROVIDENCE COLLEGE

LOCKOUT/TAGOUT

POLICY AND PROCEDURES

Lockout/tagout policy for Providence College

Contents

Purpose

This establishes the Providence College policy for protecting employees who must do service or maintenance on machines or equipment and who could be injured by an unexpected start-up or release of hazardous energy. Service or maintenance includes erecting, installing, constructing, repairing, adjusting, inspecting, unjamming, setting up, trouble-shooting, testing, cleaning, and dismantling machines, equipment or processes.

This policy will ensure that machinery or equipment is stopped, isolated from all hazardous energy sources, and properly locked or tagged out, prior to service or maintenance.

Scope

This policy applies to all Providence College Physical Plant employees who may be exposed to hazardous energy during service or maintenance work. Uncontrolled hazardous energy includes potential (springs), kinetic, pneumatic, chemical, electrical, mechanical, pressurized (gas/steam/air), hydraulic, gravity, radiation, and thermal sources.

Also see section "Contract service and maintenance".

Training

Employees who may be exposed to hazardous energy will receive training before assignment to ensure that they understand Providence College's energy-control policy and have the skills to apply, use, and remove energy controls. The training will include the requirements of 1910.147 and the following:

- Affected employees will be advised of the purpose and use of energy-control procedures, and about the prohibition against starting machines that are locked or tagged out.
- Authorized employees will be trained to recognize hazardous energy sources, the type and magnitude of energy in the workplace, the methods and means necessary for isolating and controlling energy, and the means to verify that the energy is controlled. *An authorized employee locks out or tags out equipment to do service work. An affected employee becomes an authorized employee when that employee's duties include service or maintenance work on equipment.*
- Authorized employees will be retrained whenever their job assignments change, energy-control procedures change, equipment or work processes present new hazards, or when they don't follow energy-control procedures.

Current training records will be maintained for each authorized employee including the employee's name and the training date.

Employer and employee responsibilities

The Providence College Office of Environmental, Health and Safety, and Physical Plant management is responsible for implementing and enforcing this policy.

All Physical Plant employees must comply with this policy.

Supervisors must enforce the use of lockout and tagout devices when employees do service or maintenance work and may be exposed to hazardous energy.

Employees who do service and maintenance work must follow the lockout/tagout procedures described in this policy.

Employees who work in areas where lockout/tagout procedures are used must understand the purpose of the procedures and are prohibited from attempting to restart machines or equipment that are locked or tagged out.

Lockout and tagout devices

Lockout and tagout devices must meet the following criteria to ensure that they are effective and not removed inadvertently:

- Lockout devices must work under the environmental conditions in which they are used. Tagout device warnings must remain legible even when they are used in wet, damp, or corrosive conditions.
- Lockout devices must be designated by color, shape, or size. Tagout devices must have a standardized print and warning format.
- Lockout devices and tagout devices must be strong enough that they can’t be removed inadvertently. Tagout devices must be attached with a single-use, self-locking material such as a nylon cable tie.
- Any employee who sees a lockout or tagout device must be able to recognize who attached it and its purpose.
- Each lock must have a unique key or combination.

Energy-isolating devices are the primary means for protecting Providence College employees who service equipment and must be designed to accept a lockout device. Energy isolating devices must clearly identify function.

Lock Use and Lock Identification Control

Providence College lockout/tagout locks are color coded for identification purposes.

Red or black locks are equipment isolation locks. These locks are used to lock out energy sources such electric breakers, valve hand wheels/actuators and other sources.

All equipment isolation devices must by identified by an accompanying tag, or some other means, so that all personnel encountering the lock can tell the following: the name of person who applied the lock, the date of application, and the type of work being performed.

The "Authorized Person" shall apply one red or black lock for each energy isolation device. Once the locks are placed, the key for each are placed inside the Lockout Box and the Authorized Person shall attach a yellow "Custodial Lock" to the box.

Yellow locks are lockout box locks. If needed, they are used to control access to the keys within the lockout box.

Lockout Boxes

Lockout boxes are sometimes used when the equipment being serviced: 1) has several energy sources; 2) has several energy isolating devices; and 3) has several trades involved servicing the equipment. (Note: the Authorized Person decides if a Lockbox is needed for a particular job.)

The Lockout Box is the repository for all equipment lock keys used to isolate system energy. Each box is locked using a Yellow lock.

The Authorized Person responsible for controlling the lockout/tagout permit/procedure controls the key to this lock. Once all of the active equipment lock keys are placed within the lockout box, the Authorized Person shall place a Yellow lock on the box and maintain control of the key.

Lockboxes that remain in-use beyond one-day of work shall be stored in a designated area with the yellow lock in the hasp as noted above. At this point the yellow lock key shall be under the control of your supervisor (Power Plant, Electricians, Plumbing, or HVAC).

Exposure survey

Each Providence College Physical Plant supervisor, prior to assigning any necessary service or maintenance task, shall locate and identify all energy isolating devices associated with the equipment to be serviced; determine the types and magnitude of energy; and determine whether that task must be accomplished with lockout or tagout procedures. If so, the Authorized Person assigned the task shall follow the procedures outlined in this document.

Energy control procedures

Authorized employees who lockout/tagout equipment or do service and maintenance must follow specific energy-control procedures. Employees must do the following before beginning service or maintenance work:

1. Inform all affected employees that a lockout system is being used during equipment shutdown, and the reason for the lockout.
2. Shut down the equipment by the normal stopping procedure.
3. Isolate or block hazardous energy by appropriate isolation procedures, such as by closing valves, turning off circuits, etc.
4. Use equipment-appropriate methods to dissipate or remove any potential (stored) or residual energy, and ensure that the equipment is de-energized.
5. Lockout/tagout the energy isolating devices with assigned individual lock(s).
6. The authorized employee shall verify the equipment is isolated from hazardous energy and de-energized by attempting to operate the equipment by checking switches, valves, etc.

When re-energizing equipment is necessary — when power is needed to test or position the equipment, for example — temporary removal of lockout or tagout devices is allowed. This applies only for the time required to perform the task, the department supervisor must be informed, and the procedure must be documented.

Employees must do the following before they remove lockout/tagout devices and re-energize equipment:

1. Remove tools and replace machine or equipment components.
2. Inform coworkers about energy-control device removal.
3. Ensure all workers are clear of the work area.
4. Verify machine or equipment power controls are off or in a neutral position.
5. Remove the lockout/tagout device(s).
6. Re-energize equipment.

Specific energy-control procedures

Providence College has determined that some machines and equipment that have energy-isolating devices require specific pre-planned Energy Control procedures. In such cases, the Providence College supervisor shall document, then inform the Authorized maintenance worker of the scope of work and location of machine isolation points, as needed. This would typically be used on repetitive tasks such as Preventative Maintenance activities.

Special lockout/tagout situations

Energized testing

When an energy-isolating device is locked/tagged and it is necessary to test or position equipment, do the following:

1. Remove unnecessary tools and materials.
2. Ensure that all other employees are out of the area.
3. Remove locks/tags from energy isolating devices.
4. Proceed with test.
5. De-energize equipment and lockout/tagout energy-isolating devices.
6. Operate equipment controls to verify that the equipment is de-energized.

Contract service and maintenance

Outside contractors working at Providence College must be made aware of Providence College's lockout/tagout policies before the contractor does onsite work. Outside contractors must understand and comply with Providence College's lockout/tagout policies.

Outside contractors shall coordinate with the department supervisor (Power Plant, Electrical, Plumbing or HVAC) for the location of the specific job lockout points. The contractor shall hang his lock on the lockout point, along with a tag identifying who the lock belongs to, where it shall remain until the job is finished. This is so that any college employees in the area will know who is working on the machine.

Group lockout

When authorized employees must service equipment that has several energy sources and several energy-isolating devices, the employees must follow group lockout procedures. The machines and equipment that require group lockout shall be identified before servicing by the Providence College supervisor. If more than one individual is required to lock out or tag out equipment, each employee involved shall place their own personal lockout device or tagout device on the energy-isolating devices(s). When an energy-isolating device cannot accept multiple locks or tags, a multiple lockout or tagout devise (hasp) may be used. If a multiple lockout devise cannot be used, a single lock may be used to lock out the machine or equipment with the key being placed in a group lockout box, which allows the use of multiple locks to secure it. Each employee will then use their own lock to secure the box. As each employee no longer needs to maintain their lockout protection, that person will remove their lock from the group lockout box.

Removal of Lock other than by the Authorized Employee

No locks shall ever be removed from any energy-isolating device by anyone other than the Authorized Employee without explicit authorization from the department supervisor.

Inspections of written energy-control procedures

Providence College supervisors will perform and document annual inspections of energy-control procedures to ensure that their specifically assigned employees understand and use them effectively. Documentation will include the following:

- The equipment on which the procedure is used.
- The date of the inspection.
- The employees included in the inspection.
- The inspector.

If the supervisor finds that employees are not following an energy-control procedure or that the procedure is not protecting them, employees must be retrained and the procedure's deficiencies corrected.

The supervisor himself must understand the procedure and must be someone other than those following the procedure at the time of the inspection. Each procedure's accuracy, completeness, and effectiveness must be verified.

If the inspection covers a procedure for equipment with an energy-isolating device that can be *locked out*, the supervisor must review the procedure with the employees who use it to service the equipment. The supervisor can review the procedure with the employees individually or in a group.

If the inspection covers a procedure for equipment with an energy-isolating device that can only be *tagged out*, the supervisor must review the procedure with the authorized employees who service the equipment and with affected employees who may work in the area when the equipment is serviced. The supervisor can review the procedure with the employees individually or in a group.

Definitions

Affected employee: A person who uses equipment that is being serviced under lockout or tagout procedures, or who works in an area where equipment is being serviced.

Authorized employee: A person who locks out or tags out equipment to do service or maintenance work. An affected employee becomes an authorized employee when that employee's duties include service or maintenance work on equipment.

Capable of being locked out: An energy-isolating device that is designed with a hasp or other means of attachment to which, or through which a lock can be affixed, or if it has a locking mechanism built into it. Other energy-isolating devices will also be considered to be capable of being locked out, if lock out can be achieved without the need to dismantle, rebuild, or replace the energy-isolating device or permanently alter its energy-control capability.

Disconnect: A switch that disconnects an electrical circuit or load (motor, transformer, or panel) from the conductors that supply power to it. An open circuit does not allow electrical current to flow. Under a lockout procedure, a disconnect switch must be capable of being locked in the open position.

Energized: Connected to an energy source or containing potential energy.

Energy source: Any source of energy. Examples: electrical, mechanical, hydraulic, pneumatic, chemical, and thermal.

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.

Hazardous energy: Any of the types of energy existing at a level or quantity that could be harmful to workers or cause injury through inadvertent release or start-up of equipment.

Lockout device: A device that locks an energy-isolating device in the safe position.

Lockout: Placing a lockout device on an energy-isolating device, under an established procedure, to ensure the energy-isolating device and the equipment it controls can't be operated until the lockout device is removed. (An energy-isolating device is capable of being locked out if it has a hasp that accepts a lock or if it has a locking mechanism built into it.)

Procedure: A series of steps taken to isolate energy and shut down equipment.

Servicing or maintenance: Workplace activities such as constructing, installing, setting up, adjusting, inspecting, modifying, and maintaining machines or equipment. Also includes lubricating, cleaning, unjamming, and making adjustments or tool changes if a worker may be exposed to the unexpected startup of the equipment during such activities.

Tagout device: A prominent warning sign, such as a tag, that can be securely fastened to an energy-isolating device to indicate that the energy-isolating device and the equipment it controls can't be operated until the tagout device is removed.

Tagout: Placing a tagout device on an energy-isolating device, under an established procedure, to indicate that the energy-isolating device and the equipment it controls can't be operated until the tagout device is removed.

PROVIDENCE COLLEGE LOCKOUT/TAGOUT PERMIT
ENERGY CONTROL PROCEDURE FORM

1. GENERAL INFORMATION

Date	Location	WO	Equip ID
Scope	Contractors?	Energy Types	

2. MACHINE LOCKS

Lock Box #		Single Lock #					
Lock #	Machine Isolation Point	As Found		On		Off	
		Date	Time	Date	Time	Date	Time

3. PERSONAL LOCKS

Lock #	Name	Company	On		Off	

ENERGY CONTROL PROCEDURE FORM (cont.)

4. WORK EXECUTION

I have verified that the equipment is at a zero state for ALL energy sources, confirmed that the appropriate LOTO device(s) is being used, correct placement of locks and tags have occurred and will monitor the project. I have also spoken to the outside contractor (if applicable).

PRINT NAME_____

SIGNATURE_____

DATE_____**TIME**_____

5. WORK COMPLETION

All repairs have been made, tools removed, guards put back in place and all personnel are clear. I have verified that the equipment is ready to be returned to service and affected personnel have been notified.

PRINT NAME_____

SIGNATURE_____

DATE_____**TIME**_____