Lock Out/Tag Out Safety Program

Purpose

The purpose of this program is to protect Normandale's employees as well as other contractors by ensuring that equipment is isolated from all potential energy sources when being serviced.

References

Occupational Health and Safety Administration (OSHA) 29 CFR 1910.147
NFPA 70E – Standard for Electrical Safety in the Workplace

Definitions

Affected Employees – An employee whose position requires them to operate or use a piece of equipment that is being serviced.

Authorized Employee – An employee or contractor who is recognized by the College as having the ability to service a piece of equipment on Normandale's campus and who has the authority to lock out and tag out equipment that is being serviced.

Disconnecting Means – A device that cuts off the source of power to equipment such as an electrical disconnect.

Energy Isolating Device – A mechanical device that physically prevents the transmission or of electrical energy, thermal energy etc. The following would be examples: Kinetic energy (mechanical energy), potential energy.

Energy Source – Any electrical, mechanical, hydraulic, pneumatic, chemical, nuclear, thermal or any other potential energy source that could harm an employee.

Energized – Any machine or equipment that is connected to an energy source or contains residual or stored energy.

Entry Point of Power – The point at which energy enters a piece of equipment such as the main disconnect.

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

Lock Out – The placement of a lock out device on an energy isolating device in accordance to established procedure, ensuring that the equipment to be controlled cannot be operated until the lock out device is removed.

Lock Out Device – A devise used to lock out equipment by means of a lock in order to prevent it from energizing.

Normal Production operations – The operation of a machine performing its intended functions. Power-Any type of energy that can operate equipment.

Qualified person – One who has skills and knowledge related to the construction and operation of the electrical equipment and installations and has received safety training to recognize and avoid the hazards involved.

Residual Electrical Power - Electrical power that may be stored when the power supply is cut and the equipment is in the off position.

Tag Out – The placement of a tag out device on an energy isolating device.

Tag Out Device – A prominent tag placed on an energy isolation device showing that it cannot be operated until the tag has been removed.

Responsibility for Compliance

Building Services Employees

- Are responsible to follow all aspects of this plan including the notification of the Building Services Maintenance Foreman when equipment is to be shut down for service and are responsible for the placement of all appropriate locks and tags.

Building Services Maintenance Foreman

- Is responsible to ensure that trades personnel follow the program with all rights given to him as manager over this area.
- Has the sole right to remove other staff members lock out/ Tag out devices.

Master Electrician

- As the staff member responsible for assigning or performing all electrical repairs on campus and by virtue of his licensure with the State of Minnesota, he is responsible for daily oversight of all electrical work on campus, reporting any discrepancies to the Building Services Maintenance Foremen for appropriate action.
- Identification of types of equipment that require these procedures.

State Program Supervisor

- The creation and maintenance of an updated plan
- The provision of training regarding the plan
- Ensuring that a proper lock out/tag out device is available and assigned
- Information Resource
- Maintaining training records of the plan

Physical Plant Director

- That all staff and contracted vendors comply with the Campus plan for Lock Out/Tag Out Plan.
- The provision of training regarding the plan
- Ensuring that a proper lock out/tag out device is available and assigned
- Information Resource
- Maintaining training records of the plan

Energy Control Procedures

Full lock out /tag out procedures will apply as listed in the Sequence of Procedure section with the following exceptions:

- ✓ The equipment being worked on has no potential for stored or residual energy that could endanger anyone else
- ✓ The equipment has a single source of energy that can be readily identified and isolated

- ✓ A single Lock Out device will achieve a locked out condition
- ✓ The equipment creates no hazard for other employees

Lock Out/Tag Out Devices

Locks and tags used for exposure to hazardous conditions shall be unique, shall be readily identifiable as lockout/tagout devices, and shall be used for no other purpose. The following is a list of these devices:

- o Padlocks
- o Lock Out Hasps
- o Plug end locks
- o Circuit breaker lock outs
- o Ball valves lock out devices
- o Lock out tags /devices

Padlocks – Padlocks will be issued to all authorized employees. Each padlock will have an individual key associated with it. The padlocks will either be number or color coded and designated to one staff member. A master key will be held by the Building Services Maintenance Foreman and only he is authorized to remove someone else's tag.

Lock Out Clamps – These are designed to hold more than one lock. Each staff member would be the only authorized employee to remove their padlock from the clamp.

Warning Tags – All authorized employees will have access to warning tags to be used when whenever a lock cannot be applied. The tags will include the signature of the authorized employee as well as the date. The tag must be placed as close to the energy source disconnect as possible and should be attached by a plastic cable tie.

Sequence of Lock Out/Tag Out

Notification of Employees

- ➢ Authorized staff will be responsible to notify all affected employees. Notification should occur prior to the Lock Out/ Tag out procedure.

Application of Control

- The equipment to be serviced should be reviewed prior to the starting of the work for the best method of controlling the energy.
- The machine must be turned to the off position
- Completion of the Lock Out Tag
- All machinery is turned to the "on" position to verify that the machine cannot operate and that there is no residual energy (capacitors, springs etc). Once it has been determined that the equipment can no longer run, it will be turned to the "off" position.
- All energy isolating devices that are needed to control the escape of hazardous energy must work in a manner to isolate the equipment from activation.
- *If a switch or disconnect cannot be isolated for any reason, an electrician must remove the fuses. When the equipment is fully locked out repairs can begin.*

Procedures for Group Lock Out

The following procedures should be used when more than one authorized Building Services Staff member or contractor is servicing equipment:

- A "qualified person" shall be designated to ensure the implementation and coordination of the Lock Out/Tag Out program is followed. In the event that he is unavailable, the responsibility will be designated to the Master Electrician who is the direct report to all authorized staff.
- All machinery is turned to the "on" position to verify that the machine cannot operate and that there is no residual energy (capacitors, springs etc). Once it has been determined that the equipment can no longer run, it will be turned to the "off" position.
- Each authorized employee will be assured that the equipment has been de-energized.
- Before work can begin, each employee or contractor will place their own lock out or tag out devices on the energy isolating device.

Restoring Equipment to Service

When the work is complete, the following procedures should be used to ensure a safe restart:

- An inspection of the equipment should be made by the "qualified person" or his designate.
- Verification with the appropriate employee will be made regarding any remaining locks or tags prior to energizing the system. An effort will be made to contact any employee with a remaining lock or tag. The "qualified person" will make the determination to energize.
- Notification to staff that the work is complete
- Remove all tools and debris

Training

Training session regarding Lock Out/Tag Out will occur annually.

Authorized Employees

The following positions will be considered as Authorized Employees in relation to this plan:

- Building Services Maintenance Foreman
- Master Electrician
- Plant Maintenance Engineers
- Building Utility Mechanic

Discipline

Knowingly violating this procedure and knowingly operating a disconnecting means with an installed lock out device may lead to disciplinary action as described in your current labor agreement.

Review

This program was last reviewed by the Master Electrician and State Program Supervisor on (date) _____, and is scheduled to be reviewed next on (date) _____.

Signature:_____ Signature: _____

Print:_____ Print: _____

Signature:_____ Date: _____

Print:_____

Position:_____

By signing this Lockout/Tagout Procedure, you are agreeing that you understand all procedures and willingly comply.

Reviewed 5/11/2015