School District Lock-out / Tag-out Program

Lock-out / Tag-out Program

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Lock-out / Tag-out Program

In accordance with the OSHA Lock-out-Tag-out Standard, 29 CFR 1910.147, the following lock-out/tag-out program has been developed. Pursuant to Section 101.055, Stats., the Wisconsin Department of Safety and Professional Services (DSPS) is required to adopt and enforce health and safety standards equal to those offered private employees as administered by OSHA. Definitions relating to the lock-out/tag-out program are found in this program.

Additional specific school district program information that is included as part of this plan can be found on the Health & Safety page of the school district safety website under Lock-out/Tag-out.

The school district requires the use of lock-out/tag-out procedures and energy control devices by authorized personnel whenever maintenance or service is performed on machines or equipment. These procedures shall be used to ensure that the machine or equipment is de-energized and isolated from all potentially hazardous energy sources and locked out before employees perform any service or maintenance where the energization or start-up of machines or equipment or the release of stored energy, could harm employees.

I. Scope/Application

This program covers the servicing and maintenance of machines and equipment in which the energization or start up of the machines or equipment, or release of stored energy, could harm employees. This standard establishes minimum performance requirements for the control of such hazardous energy.

Normal production operations are not covered by this standard (See Subpart O of this Part). Servicing and/or maintenance which takes place during normal production operations is covered by this standard only if:

1. An employee is required to remove or bypass a guard or other safety device: or

2. An employee is required to place any part of his or her body into an area on a machine or piece of equipment where work is being performed at or upon the point of operation, or when an associated danger zone exists during a machine operating cycle.

Exception – Minor tool changes and adjustment which take place during normal production operations are not covered by the OSHA Standard if they are routine, repetitive, and integral to the use of the equipment for production.

Note – This program does not include references or procedures with regard to NFPA 70E/Arc-Flash as all equipment should be placed into an “electrically safe” condition prior to service or maintenance. This program does not authorize employees to work on electrical panels, switch gears, bus bars, etc….

II. Employer Responsibilities

1. Review plan and procedures any time there are changes in machines, equipment or processes.

2. Provide training to employees.

3. Develop specific written energy control procedures for necessary equipment.

4. Retain appropriate documentation including records of training and specific energy control procedures.

5. Inform outside contractors of their responsibilities.

6. Perform periodic (annual) inspections of all authorized employees.

III. Employee Responsibilities

1. Employees authorized to perform lock-out of machines/equipment are required to perform the lock-out in accordance with this procedure.

2. All employees, upon observing a machine or piece of equipment which is locked out to perform servicing or maintenance, shall not attempt to start, energize or use that machine or equipment.

3. Employees authorized to lock-out machines/equipment shall either observe and follow an existing energy control procedure or fill out and complete an energy control procedure when performing maintenance or service.

IV. Disciplinary Action

Failure to comply with this policy will result in disciplinary action as determined by the school district.

V. Protective Equipment

Locks, tags, chains, wedges, key blocks, adapter pins, self-locking fasteners, or other hardware shall be provided by the employer for isolating, securing or blocking of machines or equipment from energy sources.

Lockout devices and tagout devices shall be singularly identified; shall be the only devices(s) used for controlling energy; shall not be used for other purposes; and shall meet the following requirements:

1. Durable

   A. Lockout and tagout devices shall be capable of withstanding the environment to which they are exposed for the maximum period of time that exposure is expected.

   B. Tags shall not deteriorate when used in corrosive environments such as areas where acid and alkali chemicals are handled and stored.

2. Standardized

   A. Lockout and tagout devices shall be standardized within the facility in at least one of the following criteria: Color; shape; or size; and additionally, in the case of tagout devices, print and format shall be standardized.

3. Substantial

A. Lockout devices. Lockout devices shall be substantial enough to prevent removal without the use of excessive force or unusual techniques, such as with the use of bolt cutters or other metal cutting tools.

4. Identifiable

A. Lockout devices and tagout devices shall indicate the identity of the employee applying the device(s).

B. Tagout devices shall warn against hazardous conditions if the machine or equipment is energized and shall include a legend such as the following: Do Not Start. Do Not Open. Do Not Close. Do Not Energize. Do Not Operate.

VI. Energy Control Procedure

All energy isolating devices shall be locked out prior to servicing or maintenance. If an energy isolating device is not capable of being locked out, the employee is not authorized to work on that equipment. Use of a tag-out only system will not be permitted.

Procedures shall be developed, documented and utilized for the control of potentially hazardous energy.

Note: *Exception:* The employer need not document the required procedure for a particular machine or equipment, when all of the following elements exist: (1) The machine or equipment has no potential for stored or residual energy or re-accumulation of stored energy after shut down which could endanger employees; (2) the machine or 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 or equipment is isolated from that energy source and locked out during servicing or maintenance; (5) a single lockout device will achieve a locker-out condition; (6) the lockout 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; and (8) the employer, in utilizing this exception, has had no accidents involving the unexpected activation or re-energization of the machine or equipment during servicing or maintenance.

The written energy control procedures shall include the following information:

1. The authorized employee shall notify affected employees that servicing is required on equipment and equipment must be shut down and locked out to perform the maintenance.

2. The authorized employee shall identify the type and magnitude of the energy that the machine or equipment utilizes, understand the hazards of each energy source and shall know the methods to control the energy.

3. When the electrical disconnect is attached or adjacent to the equipment, the motor stop button shall be depressed and the disconnect handle placed in the "OFF" position. The disconnect handle should be operated while standing to one side of the disconnect rather than in front of the switch.

4. The authorized employee should attach his/her lock to the handle of the disconnect and remove the key. If the machine or equipment is not capable of being locked out, tag-out devices must be

used.

5. If a switch or disconnect cannot be locked out for any reason, an electrician must remove the fuses before any work is started.

6. Stored or residual energy such as that in capacitors, springs, rotating flywheels, hydraulic systems, and air gas, steam or water pressure lines must be dissipated or restrained by methods such as grounding, repositioning, blocking, vesting, etc….

7. Equipment using hydraulic pressure shall be locked out by placing the hydraulic pump motor electrical disconnect switch in the "OFF" position, applying a lock to the disconnect and bleeding off residual pressure in the piping system if the energy could have potential to endanger personnel.

8. The authorized employee shall ensure that the equipment is completely disconnected from all energy source(s) by operating the push button or other normal operating controls or by otherwise testing to make certain the machine/equipment will not operate.

9. Return operating control(s) to neutral or "OFF" position after verifying the isolation of the equipment.

10. The machine is now locked out and service or repairs can safely begin.

11. If there are any doubts about the above procedure, the authorized employee shall contact his/her supervisor before proceeding.

12. Specific procedures shall be utilized during shift or personnel changes to ensure the continuity of lockout or tagout protection, including provision for the orderly transfer of lockout or tagout device protection between off-going and oncoming employees, to minimize exposure to hazards from the unexpected energization or start-up of the machine or equipment, or the release of stored energy.

VII. Procedure Involving More Than One Person or Outside Contractors

In the preceding steps, if more than one individual is required to lock-out equipment. Each authorized person shall place his/her own personal lock-out device on the energy isolating device(s). When an energy isolating device cannot accept multiple locks, a multiple lock-out or tag-out device (hasp) may be used.

Whenever outside servicing personnel are to be engaged in activities covered by the scope and application of this standard, the on-site employer and the outside employer shall inform each other of their respective lockout or tagout procedures.

The on-site employer shall ensure that his/her employees understand and comply with the restrictions and prohibitions of the outside employer's energy control program.

VIII. Restoring Equipment To Service

When servicing or maintenance is completed and the machine or equipment is ready to return to normal operating condition, the following steps shall be taken by the authorized person:

1. Visually inspect the machine or equipment and the immediate area around the machine or equipment to ensure that nonessential items have been removed and that the machine or equipment components are operationally intact.

2. Visually inspect the work area to ensure that all employees have been safely positioned or removed from the area.

3. Verify that the controls are in neutral.

4. Remove the lock-out device(s) and re-energize the machine or equipment.

   Note – The removal of some forms of blocking may require re-energization of the machine before safe removal.

5. Notify affected employees that the servicing or maintenance is completed and the machine or equipment is ready to use.

IX. Abandoned Lock Removal

If a safety lock has been left in place by an employee who has departed the building, it shall be removed only by adherence to the following procedure before the lock is removed:

1. A thorough inspection of the equipment is to be made by the supervisor responsible for the area.

2. The supervisor must confirm that the authorized employee who applied the lock-out device is not at the facility.

3. The supervisor shall remove the lock providing he/she has determined starting up the equipment will not endanger other personnel.

4. Each time it is necessary to remove/cut a safety lock, a written report shall be prepared by the person authorized to remove the lock and copy to be sent to the Buildings and Grounds Manager.

5. The supervisor shall make a reasonable effort to contact the employee who originally applied the lock to inform him/her that the device has been removed. This contact is necessary so that the affected employee would be informed that this has occurred prior to resuming work at this facility.

X. Training and Communication

The employer shall provide training to ensure that the purpose and function of the energy control program are understood by employees and that the knowledge and skills required for the safe application, usage, and removal of the energy controls are acquired by employees. The training shall 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 shall be instructed in the purpose and use of the energy control procedure.

3. All other employees whose work operations are or may be in an area where energy control procedures may be utilized, shall be instructed about the procedure, and about the prohibition relating to attempts to restart or reenergize machines or equipment which are locked out or tagged out.

4. Retraining shall 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 the energy control procedures.

5. Additional retraining shall also be conducted whenever a 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.

6. The retraining shall reestablish employee proficiency and introduce new or revised control methods and procedures, as necessary.

7. The employer shall certify that employee training has been accomplished and is being kept up to date. The certification shall contain each employee's name and dates of training.

Affected employees shall be notified by the employer or authorized employee of the application and removal of lockout devices or tagout devices. Notification shall be given before the controls are applied, and after they are removed from the machine or equipment.

XI. Periodic Inspection

At least annually, the District shall conduct an inspection of all authorized employees to ensure the employees understand the program and are properly completing the Energy Control Checklist form.

XII. 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 lock-out or tag-out, 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 lock-out can be achieved without the need to dismantle, rebuild, or replace the energy isolating device or permanently alter its energy control capability.

Energized – Connected to an energy source or containing residual or stored energy.

Energy Control Procedure – A written form to document the steps and manner in which machines or equipment are safely de-energized and locked out by authorized employees.

Energy Isolating Device – A mechanical device that physically prevents the transmission or release or energy, including but not limited to the following:

1. 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;
2. a line valve;
3. a block;
4. 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, or other energy.

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. It is commonly used to replace or add sections of pipeline without the interruption of service for air, gas, water, steam, and petrochemical distribution systems.

Lock-out – The placement of a lock-out 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 lock-out devices is removed.

Lock-out 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.

Normal Production Operations – The utilization of a machine or equipment to perform its intended production function.

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 un-jamming 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.

Setting up – Any work performed to prepare a machine or equipment to perform its normal production operation.

Tag-out – The placement of a tag-out device on an energy isolating device, in accordance with an established procedure, to indicate that the energy isolating device and equipment being controlled may not be operated until the tag-out device is removed.

Tag-out 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 tag-out device is removed.