



SAFETY PROGRAM

LOCKOUT TAG OUT WRITTEN PROGRAM

May 23, 2023

ST CLOUD TECHNICAL AND COMMUNITY COLLEGE LOCKOUT TAG OUT

Purpose

The purpose of the Lockout/Tag Out policy is to prevent injury to our employees from unexpected energizing, startup or release of stored energy that could cause injury.

POLICY

A lockout/tag out will be required whenever any maintenance or service work is performed on any machine or equipment.

1. Required Lockout/Tag Out
 - a. Maintenance or service work is defined as constructing, installing, setting up, adjusting, inspecting, modifying and maintaining and/or servicing machines or equipment. These activities may also include lubrication, cleaning or un-jamming or machines or equipment and making adjustments or tool changes, where the employee may be exposed to the unexpected energizing or startup of the equipment or release of hazardous energy.
 - b. Before removal or bypassing any guard or other safety device.
 - c. When an employee is required to place any part of their body into a “point of operation” or other danger zone that exists during a machine operation cycle.
2. Exceptions to Lockout/Tag Out
 - a. Normal production activities in which lockout cannot be feasibly conducted because of the nature of the operation, or if the operation is routine, repetitive, and integral to the use of the equipment for production, provided the work is performed using alternative measures which provides effective production.
 - b. Cord and plug type of equipment (operator has “contact” of the cord).
 - c. Hot Tap operations

Examples of Stored Energy where Lockout Tag Out Applies

- Electrical
- Mechanical
- Thermal, steam
- Chemical, acids and caustics
- Explosives, natural gas
- Hydraulic
- Pneumatic
- Gravity

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Responsibilities

1. Director of Safety & Security
 - a. Procedure development and maintenance
 - b. Authorization of lockout tag out devices
 - c. Employee training
2. Supervisors/Program Faculty
 - a. Knowledge of lockout tag out procedures
 - b. Enforcement of lockout tag out procedures
 - c. Recognition when retraining is needed
 - d. Participates in development of specific job procedures.
 - e. Annual inspections for compliance of procedures
3. Authorized employees to perform lockout tag out
 - a. Understanding the purpose of lockout tag out
 - b. Understanding hazards of unexpected energizing of equipment
 - c. Can perform lockout tag out
4. Affected employees – employees in lockout tag out
 - a. Understanding the importance of lockout tag out and the importance of not attempting to remove a lockout tag out.

Approved Lockout Tag Out Devices

1. Specific lockout locks will be issued to all authorized employees.
 - a. All locks will be standardized, approved and supplied by the Director of Safety & Security.
 - b. Only one key will be issued with each lock. The lock user will maintain the key issued. The Director of Safety & Security will maintain a master key, but will not utilize the key without following lock removal procedures.
 - c. Making duplicate keys is strictly forbidden and will be cause for disciplinary action.
 - d. Locks issued to authorized employees will not, under any circumstances, be used for any other purpose than lockout.
 - e. Multiple lock adapters will be available for all jobs requiring more than one safety lock.

Training

1. Frequency
 - a. During job orientation
 - b. Before a new job assignment
2. Affected Employee
 - a. Purpose and function of energy control program (Lockout/Tag Out)
3. Authorized Employee

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- a. Purpose and function of energy control program (Lockout/Tag Out)
 - b. Recognition of type and significance of applicable hazardous energy sources.
 - c. Methods and means for isolation and control of energy (Lockout/ Tag Out).
4. Recordkeeping
- a. All training records will be maintained electronically in the Enterprise Learning Management System.

Retraining

1. When procedure inspection reveals non-compliance by employees
2. Reported accidents due to non-compliance of procedures
3. Changes of Lockout/Tag Out program and procedures
4. Changes of machines or equipment

General Lockout Procedures

1. Employee Notification: Notify **all** affected employees that a lockout or tag out system is going to be utilized and the reason for the lockout.
2. Preparation: Locate **all** energy sources that need to be isolated.
3. Equipment Shutdown: If the equipment is in operation, shut it down by normal stopping procedures, i.e. (depress the stop button, open toggle switch, etc.) The equipment operator will be contacted for the appropriate shutdown procedures.
Note: Do not use electrical disconnect switch to stop the equipment.
4. Equipment Isolation: Operate the switch, valve or other energy isolating device(s) so the equipment is isolated from its energy source(s).
 - a. For electrical energy:
 - i. Locate the correct electrical disconnect switch and pull the disconnect switch down to the "OFF" position or disconnect the cord or plug attachment.
 - b. For mechanical energy:
 - i. Mechanical energy such as that in springs, elevated machine members, rotating fly-wheels and cams must be dissipated or be dissipated or restrained by such methods or repositioning or blocking.
 - c. For thermal, chemical, flammable, pneumatic, hydraulic systems where energy is contained in lines or pipes:
 - i. Valves must be closed or lines disconnected or isolating "blanks" installed.
5. Application of Lockout Tag Out Device

Place assigned lock or disconnect switch, valve or other locking device on machine or equipment to be worked on.

 - a. Each person involved with the repair or maintenance of a piece of equipment or machine will place their assigned lock on the locking device. A single lock **WILL NOT** be used to represent more than one employee unless management procedures have been established for such specified situations and will provide "at least as effective" protection to all employees working that particular machine or equipment.

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- b. In the event a maintenance crew will be conducting extensive equipment service or repair will be held over into continuing shifts, group lockout procedures will be followed.
 - i. The Supervisor will assume responsibility or assign responsibility for group lockout.
 - ii. The “responsible” individual will follow equipment lockout procedures and install a group lockout device.
 - iii. Each employee performing equipment servicing will install their personal lockout device and remove the personal lock when their work has been completed. This also includes the “responsible” individual installing a group lock.
 - iv. The group lock will remain on the equipment throughout the time required for repairs to be made and can only be removed by the “responsible” individual.
 - v. Tags will not be allowed unless supported by a specific job procedure demonstrating that tags are “at least as effective” as a lock. The procedure must be approved by the Safety Coordinator.
 - vi. Outside Personnel (Contractors, etc.): Whenever outside servicing personnel are engaged in activities covered by the scope and application of this standard, the on-site employers and outside employer will inform each other of their respective lockout or tag out procedures. The on-site employer will ensure that their personnel understand and comply with restrictions and prohibitions of the outside employer’s energy control procedures.

6. Release of Stored Energy

All potentially hazardous stored or residual energy must be relieved, disconnected, restrained or otherwise made safe. In the event of servicing hazardous chemical transfer lines, the lines will be flushed out according to established procedures.

7. Test Start

After making certain that no personnel are exposed and as a check to make sure all energy sources have been disconnected and all energy sources are inoperable, operate the push button or other normal operating controls to make certain the equipment will not operate.

Specific Lockout Procedures

1. For machines and equipment having one of the following criteria, specific lockout procedures will be developed through safe job procedures:
 - a. Equipment having more than one energy source.
 - b. Equipment requiring more than one lockout device.
 - c. Equipment lockout requiring multiple lockout box.
 - d. A previous, unexpected energizing accident occurred to that type of equipment.
 - e. Equipment requiring tags rather than locks.

Restoring Locked Equipment

1. Notify personnel in the area of the equipment being started up.

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2. Clear all tools and repair equipment from the machine or equipment.
3. Remove locking devices.
4. Restore all isolating devices.
5. Notify personnel responsible for the operation of the machine or equipment.

Emergency Removal of Lock; Other than the Installer

1. Attempt to contact the person responsible for installing the lock to determine the status of the work being done on the machine or equipment.
2. Notify the Director of Facilities and Security
3. Director of Facilities and Security and the Facilities Maintenance Supervisor will inspect the machine or equipment to be restarted.
 - a. Together, they will review the equipment work order
 - b. Determine if repairs are completed
 - c. Insure that all guards are properly in place and secured
 - d. Insure that all tools and repair equipment have been removed from the equipment to be started.

Inspections and Enforcement

1. Inspections will be made on an annual basis and appropriate records maintained. The Safety Coordinator will be responsible to maintain the results of the inspection.
2. If an inspection reveals a lack of compliance with the established Lockout Tag Out Procedures, retraining of all affected employees will be conducted.
3. All supervisors will conduct daily inspections for compliance of established lockout procedures.

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