Lockout / Tagout (Control of Hazardous Energy) Program

Contact: Director of Risk Management

Rogue Community College is committed to the safety of all employees regarding the potential exposure to uncontrolled hazardous energy releases in the workplace. Rogue Community College is also committed to complying with all applicable federal, state and local health and safety codes and regulations. To ensure that all affected employees are provided with the necessary information and training, the following Lockout / Tagout (Control of Hazardous Energy) Program has been established. All employees of Rogue Community College will participate and comply with all sections of the Lockout / Tagout (Control of Hazardous Energy) Program. The written Lockout / Tagout (Control of Hazardous Energy) Program will be reviewed, updated and maintained by the Rogue Community College Risk Management Department. A printed copy of the program is available at the Risk Management office and online at https://web.roguecc.edu/risk-management/campus-occupational-safety.

1. Responsibilities

    a. Employer
        i. Rogue Community College will evaluate, develop and implement each area of the Lockout / Tagout (Control of Hazardous Energy) Program as required by OAR Division 2 Subdivision J – The Control of Hazardous Energy.

    b. Employee
        i. All employees of Rogue Community College will comply with each area of the Lockout / Tagout (Control of Hazardous Energy) Program while employed at Rogue Community College.

2. Scope

    a. This program covers the servicing and maintenance of machines and equipment in which the unexpected energization or startup of the machines or equipment, or release of stored energy could cause injury to employees.

3. Definitions

    a. Affected employee. An employee whose job requires them to operate or use a machine or equipment on which servicing or maintenance is being performed under lockout or tagout, or whose job requires them to work in an area in which such servicing or maintenance is being performed.

    b. 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 program.

c. 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 lockout can be achieved without the need to dismantle, rebuild, or replace the energy isolating device or permanently alter its energy control capability.

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

e. Energy isolating device. A mechanical device that physically prevents the transmission or release or energy, including but not limited to the following: 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; a line valve; a block; 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.

f. Energy source. Any source of electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or other energy.

g. Lockout. The placement of a lockout 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 lockout device is removed.

h. Lockout device. A device that utilizes a positive means such as a lock, either key or combination type, to hold an energy isolating device in a safe position and prevent the energizing of a machine or equipment. Included are blank flanges and bolted slip blinds.

i. Normal production operations. The utilization of a machine or equipment to perform its intended production function.

j. 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 unjamming 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.

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

l. Tagout. The placement of a tagout device on 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 tagout device is removed.

m. Tagout 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 tagout device is removed.

4. Energy control program. RCC will establish a program consisting of energy control procedures, employee training and periodic inspections to ensure that before any employee performs any servicing or maintenance on a machine or equipment where the unexpected energizing, start up or release of stored energy could occur and cause injury, the machine or equipment shall be isolated from the energy source, and rendered inoperative.

5. Lockout/tagout.

    a. If an energy isolating device is not capable of being locked out, RCC's energy control program will utilize a tagout system.

    b. If an energy isolating device is capable of being locked out, RCC's energy control program will utilize lockout.

    c. After January 2, 1990, whenever replacement or major repair, renovation or modification of a machine or equipment is performed, and whenever new machines or equipment are installed, energy isolating devices for such machines or equipment shall be designed to accept a lockout device.

6. Full employee protection.

    a. When a tagout device is used on an energy isolating device which is capable of being locked out, the tagout device shall be attached at the same location that the lockout device would have been attached, and RCC will demonstrate that the tagout program will provide a level of safety equivalent to that obtained by using a lockout program.

b. In demonstrating that a level of safety is achieved in the tagout program which is equivalent to the level of safety obtained by using a lockout program, RCC will demonstrate full compliance with all tagout-related provisions of the applicable OSHA standard together with such additional elements as are necessary to provide the equivalent safety available from the use of a lockout device. Additional means to be considered as part of the demonstration of full employee protection shall include the implementation of additional safety measures such as the removal of an isolating circuit element, blocking of a controlling switch, opening of an extra disconnecting device, or the removal of a valve handle to reduce the likelihood of inadvertent energization.

7. Energy control procedure.

    a. RCC will developed, document and utilize procedures for the control of potentially hazardous energy when employees are engaged in the activities covered by this program.

    b. Exception: RCC need not document the required procedure for a particular machine or equipment, when all of the following elements exist:
        i. The machine or equipment has no potential for stored or residual energy or reaccumulation of stored energy after shut down which could endanger employees;
        ii. The machine or equipment has a single energy source which can be readily identified and isolated;
        iii. The isolation and locking out of that energy source will completely deenergize and deactivate the machine or equipment;
        iv. The machine or equipment is isolated from that energy source and locked out during servicing or maintenance;
        v. A single lockout device will achieve a locked-out condition;
        vi. The lockout device is under the exclusive control of the authorized employee performing the servicing or maintenance;
        vii. The servicing or maintenance does not create hazards for other employees; and
        viii. RCC, in utilizing this exception, has had no accidents involving the unexpected activation or reenergization of the machine or equipment during servicing or maintenance.

    c. The procedures shall clearly and specifically outline the scope, purpose, authorization, rules, and techniques to be utilized for the control of hazardous energy, and the means to enforce compliance including, but not limited to, the following:
        i. A specific statement of the intended use of the procedure;

ii. Specific procedural steps for shutting down, isolating, blocking and securing machines or equipment to control hazardous energy;
iii. Specific procedural steps for the placement, removal and transfer of lockout devices or tagout devices and the responsibility for them; and
iv. Specific requirements for testing a machine or equipment to determine and verify the effectiveness of lockout devices, tagout devices, and other energy control measures.

8. Protective materials and hardware.

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

b. 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:
    i. Durable.
        B. 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.
        C. Tagout devices shall be constructed and printed so that exposure to weather conditions or wet and damp locations will not cause the tag to deteriorate or the message on the tag to become illegible.
        D. Tags shall not deteriorate when used in corrosive environments such as areas where acid and alkali chemicals are handled and stored.
    ii. Standardized. 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.
    iii. Substantial.
        B. 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.
        C. Tagout devices. Tagout devices, including and their means of attachment, shall be substantial enough to prevent inadvertent or accidental removal. Tagout device attachment means shall be of a nonreusable type, attachable by hand, self-locking, and nonreleasable with a minimum unlocking strength of no less than 50 pounds and having the general design and basic characteristics

of being at least equivalent to a one-piece, all- environment-tolerant nylon cable tie.

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

v. Tagout devices shall warn against hazardous conditions if the machine or equipment is energized and shall include a legend such as the following:

B. Do Not Start,
C. Do Not Open,
D. Do Not Close,
E. Do Not Energize,
F. Do Not Operate.

9. Periodic inspection.

a. RCC shall conduct a periodic inspection of the energy control program at least annually to ensure that the program and the requirements of applicable OSHA standards are being followed.

i. The periodic inspection shall be performed by the Director of Risk Management.

ii. The periodic inspection shall be conducted to correct any deviations or inadequacies identified.

iii. Where lockout is used for energy control, the periodic inspection shall include a review, between the Director of Risk Management and each authorized employee, of that employee's responsibilities under the energy control program.

iv. Where tagout is used for energy control, the periodic inspection shall include a review, between the Director of Risk Management and each authorized and affected employee, of that employee's responsibilities under the energy control program being inspected.

b. RCC shall certify that the periodic inspections have been performed. The certification shall identify the machine or equipment on which the energy control procedure was being utilized, the date of the inspection, the employees included in the inspection, and the person performing the inspection.

10. Training and communication.

a. RCC 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:

i. 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.

ii. Each affected employee shall be instructed in the purpose and use of the energy control procedure.

iii. 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.

b. When tagout systems are used, employees shall also be trained in the following limitations of tags:

i. Tags are essentially warning devices affixed to energy isolating devices, and do not provide the physical restraint on those devices that is provided by a lock.

ii. When a tag is attached to an energy isolating means, it is not to be removed without authorization of the authorized person responsible for it, and it is never to be bypassed, ignored, or otherwise defeated.

iii. Tags must be legible and understandable by all authorized employees, affected employees, and all other employees whose work operations are or may be in the area, in order to be effective.

iv. Tags and their means of attachment must be made of materials which will withstand the environmental conditions encountered in the workplace.

v. Tags may evoke a false sense of security, and their meaning needs to be understood as part of the overall energy control program.

vi. Tags must be securely attached to energy isolating devices so that they cannot be inadvertently or accidentally detached during use.

c. Employee retraining.

i. 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.

ii. Additional retraining shall also be conducted whenever a periodic inspection of this program reveals, or whenever RCC has reason to believe, that there are deviations from or inadequacies in the employee's knowledge or use of the energy control procedures.

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

iv. RCC 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.

11. Energy isolation.

    a. Lockout or tagout shall be performed only by the authorized employees who are performing the servicing or maintenance.

12. Notification of employees.

    a. Affected employees shall be notified by RCC 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.

13. Application of control. The established procedures for the application of energy control (the lockout or tagout procedures) shall cover the following elements and actions and shall be done in the following sequence:

    a. Preparation for shutdown. Before an authorized or affected employee turns off a machine or equipment, the authorized employee shall have knowledge of the type and magnitude of the energy, the hazards of the energy to be controlled, and the method or means to control the energy.

    b. Machine or equipment shutdown. The machine or equipment shall be turned off or shut down using the procedures established for the machine or equipment. An orderly shutdown must be utilized to avoid any additional or increased hazard(s) to employees as a result of the equipment stoppage.

    c. Machine or equipment isolation. All energy isolating devices that are needed to control the energy to the machine or equipment shall be physically located and operated in such a manner as to isolate the machine or equipment from the energy source(s).

    d. Lockout or tagout device application.
        i. Lockout or tagout devices shall be affixed to each energy isolating device by authorized employees.
        ii. Lockout devices, where used, shall be affixed in a manner to that will hold the energy isolating devices in a “safe” or “off” position.
        iii. Tagout devices, where used, shall be affixed in such a manner as will clearly indicate that the operation or movement of energy isolating devices from the “safe” or “off” position is prohibited.
            B. Where tagout devices are used with energy isolating devices designed with the capability of being locked, the tag attachment shall be fastened at the same point at which the lock would have been attached.
            C. Where a tag cannot be affixed directly to the energy isolating device, the tag shall be located as close as safely possible to the

device, in a position that will be immediately obvious to anyone attempting to operate the device.

e. Stored energy.
    i. Following the application of lockout or tagout devices to energy isolating devices, all potentially hazardous stored or residual energy shall be relieved, disconnected, restrained, and otherwise rendered safe.
    ii. If there is a possibility of reaccumulation of stored energy to a hazardous level, verification of isolation shall be continued until the servicing or maintenance is completed, or until the possibility of such accumulation no longer exists.

f. Verification of isolation. Prior to starting work on machines or equipment that have been locked out or tagged out, the authorized employee shall verify that isolation and de-energization of the machine or equipment have been accomplished.

14. Release from lockout or tagout. Before lockout or tagout devices are removed and energy is restored to the machine or equipment, procedures shall be followed and actions taken by the authorized employee(s) to ensure the following:

    a. The machine or equipment. The work area shall be inspected to ensure that nonessential items have been removed and to ensure that machine or equipment components are operationally intact.

    b. Employees.
        i. The work area shall be checked to ensure that all employees have been safely positioned or removed.
        ii. After lockout or tagout devices have been removed and before a machine or equipment is started, affected employees shall be notified that the lockout or tagout device(s) have been removed.

    c. Lockout or tagout devices removal. Each lockout or tagout device shall be removed from each energy isolating device by the employee who applied the device.

    d. When the authorized employee who applied the lockout or tagout device is not available to remove it, that device may be removed under the direction of the Director of Risk Management. RCC will develop specific procedures to be utilized by the Director of Risk Management under these circumstances. These specific procedures shall include at least the following elements:
        i. Verification by the Director of Risk Management that the authorized employee who applied the device is not at the facility;

ii. Making all reasonable efforts to contact the authorized employee to inform him/her that his/her lockout or tagout device has been removed; and
iii. Ensuring that the authorized employee has this knowledge before he/she resumes work at that facility.

15. Additional requirements.

a. Testing or positioning of machines, equipment or components thereof. In situations in which lockout or tagout devices must be temporarily removed from the energy isolating device and the machine or equipment energized to test or position the machine, equipment or component thereof, the following sequence of actions shall be followed:
    i. Clear the machine or equipment of tools and materials;
    ii. Remove employees from the machine or equipment area
    iii. Remove the lockout or tagout devices;
    iv. Energize and proceed with testing or positioning;
    v. Deenergize all systems and reapply energy control measures to continue the servicing and/or maintenance.

b. Outside personnel (contractors, etc.).
    i. Whenever outside servicing personnel are to be engaged in activities covered by the scope and application of this program, RCC and the outside employer shall inform each other of their respective lockout or tagout procedures.
    ii. RCC shall ensure that his/her employees understand and comply with the restrictions and prohibitions of the outside employer's energy control program.

c. Group lockout or tagout.
    i. When servicing and/or maintenance is performed by a crew, craft, department or other group, they shall utilize a procedure which affords the employees a level of protection equivalent to that provided by the implementation of a personal lockout or tagout device.
    ii. Group lockout or tagout devices shall be used in accordance with the procedures required under this program including, but not necessarily limited to, the following specific requirements:
        B. Primary responsibility is vested in an authorized employee for a set number of employees working under the protection of a group lockout or tagout device (such as an operations lock);
        C. Provision for the authorized employee to ascertain the exposure status of individual group members with regard to the lockout or tagout of the machine or equipment and

D. When more than one crew, craft, department, etc. is involved, assignment of overall job-associated lockout or tagout control responsibility to an authorized employee designated to coordinate affected work forces and ensure continuity of protection; and
E. Each authorized employee shall affix a personal lockout or tagout device to the group lockout device, group lockbox, or comparable mechanism when he or she begins work, and shall remove those devices when he or she stops working on the machine or equipment being serviced or maintained.

d. Shift or personnel changes. 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.

16. The following lockout procedure has been established by RCC and will be utilized by all RCC employees.

a. This procedure establishes the minimum requirements for the lockout of energy isolating devices whenever maintenance or servicing is done on machines or equipment. It shall be used to ensure that the machine or equipment is stopped, isolated from all potentially hazardous energy sources and locked out before employees perform any servicing or maintenance where the unexpected energization or start-up of the machine or equipment or release of stored energy could cause injury.

b. All employees are required to comply with the restrictions and limitations imposed upon them during the use of lockout. The authorized employees are required to perform the lockout in accordance with this procedure. 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.

c. Sequence of Lockout
    i. Notify all affected employees that servicing or maintenance is required on a machine or equipment and that the machine or equipment must be shut down and locked out to perform the servicing or maintenance. Also notify the Director of Facilities and the Director of Risk Management prior to any work being performed.
    ii. The authorized employee needs to be able to identify the type and magnitude of the energy that the machine or equipment utilizes, shall

understand the hazards of the energy, and shall know the methods to control the energy before being authorized to perform any work on the machine.

iii. If the machine or equipment is operating, shut it down by the normal stopping procedure (depress stop button, open switch, close valve, etc.).
iv. Deactivate the energy isolating device(s) so that the machine or equipment is isolated from the energy source(s).
v. Lockout the energy isolating device(s) with assigned individual lock(s).
vi. Stored or residual energy (such as that in capacitors, 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 grounding, repositioning, blocking, bleeding down, etc.
vii. Ensure that the equipment is disconnected from the energy source(s) by first checking that no personnel are exposed, then verify the isolation of the equipment by operating the push button or other normal operating control(s) or by testing to make certain the equipment will not operate.
viii. Return operating control(s) to neutral or "off" position after verifying the isolation of the equipment.
ix. The machine or equipment is now locked out.

17. Restoring Equipment to Service. When the servicing or maintenance is completed and the machine or equipment is ready to return to normal operating condition, the following step s shall be taken:

    a. Check 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.

    b. Check the work area to ensure that all employees have been safely positioned or removed from the area.

    c. Verify that the controls are in neutral.

    d. Remove the lockout devices and reenergize the machine or equipment.

    e. The removal of some forms of blocking may require reenergization of the machine before safe removal.

    f. Notify affected employees, the Director of Facilities and the Director of Risk Management that the servicing or maintenance is completed and the machine or equipment is ready for use.