

St. Lawrence University
LOCKOUT/TAG OUT POLICY
2005

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I. Policy Statement:

St. Lawrence University requires that all colleges, departments, centers, institutes, contractors or businesses within the university community establish and fulfill requirements for affixing the appropriate lockout/tag out signage and locks to energy isolating devices and to otherwise disable machines, equipment or processes to prevent unexpected energizing, start-up, or the release of stored electrical, hydraulic, pneumatic, chemical, thermal, or other energy.

II. Reason For Policy:

This policy is specifically intended to prevent injuries to employees/users engaged in service or maintenance activities of machines, equipment, or processes where the release of stored energy may put them at serious risk. This policy ensures university compliance with OSHA 29CFR 1910.147.

III. Who Should Read This Policy:

- Deans, Directors and Department Heads
- College and Departmental Supervisors
- All Faculty, Staff and Students

IV. Contacts:

Direct any general questions about the Lockout/Tag out Policy to your departments' administrative office. If you have specific questions, you should contact the following offices.

Subject:	Contact:	Telephone:
Policy Clarification	Compliance and Risk Management	315-229-5912
Policy Compliance Issues	Compliance and Risk Management	315-229-5912

V. Definitions:

These definitions apply to these terms as they are used in this policy.

Affected Employee/User	A person whose job requires him/her to operate or use a machine or equipment on which servicing or maintenance is being performed under lockout or tag out, or whose job requires him/her to work in an area in which such servicing or maintenance is being performed.
Affected Unit	Any college, department, center, institute or business within the university community that contains machinery or equipment subject to lockout or tag out procedures.
Authorized Employee/User	A person who locks out or tags out machines or equipment to perform service or maintenance on that particular item. An affected employee/user becomes an authorized employee/user when that employee's duties include performing service or maintenance on machines or equipment covered under this policy.

Blocking Tag	A tag out device that indicates the use of chains, wedges, key blocks, adapter pins or self-locking fasteners for isolating, securing or blocking of equipment from energy sources.
Energy Isolating Device	A mechanical device that physically prevents the transmission or release of 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.
Going Through a Tag	A procedure in which a piece of equipment or machinery is started when the lockout/tag out procedure is in place.
Hot Tap	A procedure used in repair, maintenance and service activities that involve welding a piece of equipment (pipelines, vessels or tanks) under pressure to install connections or appurtenances.
Lockout	The placement of a lockout device on an energy isolating device in accordance with an established procedure; this ensures that the energy isolating device and the equipment being controlled cannot be operated until the lockout device is removed.
Lockout Device	A device that uses 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 other equipment. Included are blank flanges and bolted slip blinds.

Normal Operations	The utilization of a machine or other equipment to perform its intended function.
OSHA	Occupational Safety and Health Act
Owner's Representative	An individual who represents the university in all aspects of: a) a project dealing with a contractor. b) A lease agreement when dealing with a vendor. Caution some leases may define these owner's representatives as "contact persons" or "program directors".
Servicing/Maintenance	Work Place activities such as constructing, installing, setting up, adjusting, inspecting, modifying and maintaining/servicing machines or other equipment. These activities include lubrication, cleaning or unjamming of machines or other equipment. Making adjustments or tool changes where the employee may be exposed to the unexpected energization or startup of the equipment. This includes the release of hazardous energy.
Tag out	The placement of a tag out device on an energy-isolating device, according to 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.
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 according to 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.
University Health and Safety Committee	An administrative body responsible for overseeing the health, safety and welfare of the university community.

VI. PROCEDURES:

Scope of this policy

The universities intent is to prevent injury to employees/users engaged in service or maintenance activities of machines, equipment, or processes where the release of energy may put them at serious risk.

Examples of such machinery or include but are not limited to lighting fixtures, boilers, pumps, elevators, fan systems, starters, disconnects, breakers, compressors, HVAC units and variable frequency drives. Work situations where unexpected energization or startup can include new construction, installation or setup of equipment and the adjustment, inspection, maintenance, repair and service of machines and equipment. Energy types to be considered include electrical, mechanical, hydraulic, pneumatic, chemical and thermal.

This policy contains procedures for the service and maintenance of equipment and machines where the unexpected energization or startup could cause injury to employees/users.

Caution: The following situations are not subject to the procedures outlined in this document:

- Work on plug and cord type electrical equipment, for which exposure to the hazards of unexpected energizing, startup, or the release of stored energy of the equipment is effectively controlled by the unplugging of equipment from the energy sources and by the plug being under the exclusive control of the employee/user performing the servicing or maintenance.
- Hot tap operations involving transmission and distribution systems for substances such as gas, steam, water or petroleum products when they are performed on pressurized pipelines provided that it is clear that continuity of service is essential, shutdown of the system is impractical and documented procedures and special equipment are implemented which will provide proven and effective protection for employees and users.
- Service or maintenance that takes place during normal production operations, such as lubricating, cleaning and making minor adjustments and simple tool changes, except when an employee/user is required to place any part of his/her body into an area on a machine or piece of equipment where work is actually performed upon the materials being processed (i.e. point of operation) or where an associated danger zone exists during a machine operating cycle.
- Each unit is responsible for the development of specific energy control procedures for each machine or other equipment within its respective areas of responsibility.

General Policy Provisions:

The administrative head of each unit is responsible for the implementation of these procedures to ensure the safety of the employees/users. These procedures apply to the control of energy sources during service, installation, removal or maintenance of machines or equipment.

Procedures that affect the control of hazardous energy require:

- Shutting off the equipment or machine
- Locating the energy isolating devices and isolating the equipment or machinery from them
- Locking or tagging out the energy isolating devices
- Reducing or eliminating stored residual energy
- Verifying the effectiveness of the energy isolation

All employees/users are required to comply with the restrictions and limitations imposed upon them during the use of a lockout device. The authorized employees/users are further required to perform the lockout according to the requirements in the Lockout/Tag out Policy's' Affected Unit Written Procedures" segment of this document.

All employees/users, upon observing a machine or piece of equipment that is locked out to perform service or maintenance must not attempt to start energize or use that machine or equipment.

All employees/users must remove a lockout device before leaving the campus upon completion of a job.

Owners' representatives must inform all outside contractors performing work on campus of the universities lockout/tag out policy's' procedures and requirements.

Whenever a machine or equipment is replaced, repaired, renovated, modified, or whenever a new machine or equipment is installed, energy isolating devices that are designed to accept a lockout device must be used.

Violators should immediately be reported to the appropriate administrative head of each unit.

Sequence of Lockout or Tag out System Procedures:

1. You must notify all affected employees/users that a lockout or tag out system is going to be utilized and give the reason for that utilization because that person will know the type and magnitude of energy that the machine or equipment uses and will be able to explain that hazards involved.
2. If the machined or equipment is operating, you must shut it down by the normal stopping procedure (depress stop button, open toggle switch etc.).
3. You must operate the switch, valve or other energy isolating device (s) so that the equipment is disconnected from its energy source(s). Stored energy (such as that in springs, elevated machine members, rotating fly wheels, hydraulic systems, air, gas, steam or water pressure must be dissipated or restrained by methods such as repositioning, blocking, bleeding down, etc..

Caution: Substations must be racked down and locked out in case of high voltage

electrical distribution systems. At the building end of the feeder, the incoming breaker or switch must also be racked down or opened and locked out. This prevents a back feed on the system through a local buss tiebreaker.

4. You must attach the lockout devices to secure the energy isolating devices in the “safe” or “off” position.

5. You must be certain that no personnel are exposed and you must also check that the energy sources have been disconnected by checking the normal operating controls.

Caution: You must return operating controls to their “neutral” or “off” positions after the test.

6. When the use of lockout procedures is impossible, you must clearly place a tag out device to indicate that the operation or movement of energy isolating devices from the “safe” or “off” position is prohibited.

7. When possible, you must place the tags at the same point at which a lockout would have been attached. If this is not feasible, locate the tag as closely as safety allows to the device in a position that will be immediately obvious to anyone who attempts to operate the device.

Caution: Tags may promote a false sense of security.

8. You have now locked out or tagged out the equipment. Do not attempt to operate any switch, valve, or other energy-isolating device where it is locked out or tagged out.

9. All locked out equipment must be reported to the shift supervisor when locked out and when returning to normal service.

Restoring Machines or Equipment to Normal Operations:

When you have completed the servicing or maintenance and the equipment is ready to be returned to normal operating condition, you must take the following steps:

- Check the equipment and area to ensure that all non-essential items and tools have been removed and that the equipment is operationally intact.
- Check to ensure that all employees/users have been safely positioned or removed from the area.
- Verify that the controls are in neutral.
- Remove the lockout devices and re-energize.

Caution: Some types of blocking may require re-energization of the equipment before the blocking material may be removed safely.

- Report to the shift supervisor when the equipment is returned to normal service.

Acquiring New or Modifying Old Equipment:

Whenever you replace, repair, renovate or modify a machine or other equipment, or whenever you install new machines or equipment, you must be certain that those machines and equipment are designed to accept a lockout device.

When More Than One Person is Involved:

When more than one person is required to lockout or tag out equipment, each must place his/her own personal lockout device or tag out device on the energy isolating device (s).

When an energy isolating device cannot accept multiple locks or tags, you must use a lockout or tag out device (hasp) which can accept multiple locks or you must use a single lock to lockout the machine or equipment, placing the key in a lockout box or cabinet which allows the use of multiple locks to secure it.

Each employee/user must use his/her own lock to secure the box or cabinet. When each person no longer needs to maintain his/her lockout protection, that person will remove his/her lock from the box or cabinet.

Requirements for Lockout/Tag out Devices:

Lockout and tag out devices must be standardized throughout the university. Each lockout and tag out device must indicate the identity of the authorized employee using the device and must warn against re-energizing of the equipment. The only acceptable lockout and tag out devices are authorized by OSHA.

Units must apply all of their authorized employees/users with an adequate number of lockout and tag out devices for their areas of responsibility.

You must lockout/tag out the energy isolating devices with assigned lock (s) or tag (s). The lockout/tag out device must be readily identifiable and must not be used for any purpose other than energy control.

The following conditions must also be met:

- Locks must be individually keyed.
- One key must remain in the possession of the authorized employee/user; the other must be placed in a secure location in the appropriate supervisor's office.
- In case of a dire emergency situation, the supervisor may use the foreman's key to remove the lockout after it has been established that all safety precautions for removal of the lockout device have been observed.
- Supervisors must maintain a current list of key assignments, signed by the individual receiving the key. A duplicate copy of this list must be forwarded to the Director of Compliance and Risk Management.
- Blocking tags must be provided for those disconnect means where no locking ring is available.
- The authorized employee's name and date when placed will be put on each tag.

Training:

The Department of Compliance and Risk Management (Health & Safety) must provide training to all authorized employees/users to ensure that the purpose and function of the energy control procedures are understood. Health and Safety must provide employees/users the knowledge and skills necessary for the safe application, usage and removal of the energy controls that are required. Training sessions must be scheduled on a periodic basis for any new personnel who may require hazardous energy control training.

- Each supervisor must forward a list of authorized employees/users that are to receive hazardous energy control training to Compliance and Risk Management.
- Compliance and Risk Management and Operational Supervisors must insure that the annual training of authorized employees is completed. This annual training should be documented in the Health and Safety office.
- Retraining of authorized employees/users whenever there is a change in energy control.
- Instruction to affected employees/users in the purpose and procedure of energy control.
- Instruction of all other employees/users who work in the area in the procedure and the prohibitions for attempting to restart equipment that has been locked out or tagged out.
- Instruction of all other employees/users in the use and limitations of the tag out system.

Enforcement:

The department of Compliance and Risk Management along with operation supervisors/managers should conduct periodic inspections to ensure that the energy control procedures and requirements are being followed. Additionally, the operational manager must correct any inadequacies in and/or deviations from the procedure noted during period inspections.

- Enforcement of this procedure must be in accordance with disciplinary procedures established by University Human Resources or as negotiated with the respective bargaining units.

RESPONSIBILITIES:

You	Read and understand the Lockout/Tag out Policy. Comply with its provisions.
Affected Unit	Communicate the provisions of the Lockout/Tag out policy to all staff. Develop and maintain written procedures. Provide specific training for areas of responsibility. Ensure compliance with the policy (EVERYONE TOGETHER).
Compliance and Risk Management	Support the implementation of this policy. Provide initial training to all employees/users. Inspect University buildings periodically.