LOCKOUT/TAGOUT (LO/TO) PROGRAM
For
CANISIUS COLLEGE

Effective: February 1, 2006

(Supersedes edition dated November 1, 2002)

1. BACKGROUND

The Occupational Safety and Health Administration (OSHA), under Title 29 Code of Federal Regulations 1910.147, has issued a Control of Hazardous Energy (Lockout/Tagout) Standard. It covers the servicing and maintenance of machines and equipment in which the unexpected energization, start up, or the release of stored energy from them could cause injury to employees. This standard requires employers to establish a program and utilize procedures for affixing appropriate lockout or tagout devices to energy-isolating devices, and to otherwise disable machines or equipment to prevent unexpected energization, start up or release of stored energy to prevent injury to employees.

2. PURPOSE

The ultimate purpose of this program is to provide the safest possible work environment for the employees of Canisius College by reducing the risks of exposure to stored energy. The program will focus on three primary topics to achieve this objective:

A. Establishment of Energy Control Procedures
B. Employee Training
C. Periodic Inspections

3. ENERGY CONTROL PROCEDURES

A. The key to a successful program is the affixing of an appropriate device to isolate energy or otherwise disable machinery or equipment to prevent unexpected energization, start up, or release of stored energy which could cause injury during repair, maintenance or cleaning. Such devices will always be used whenever there is a possibility of unexpected energy release. A tagout device will only be used if the energy-isolation device is not capable of being locked out. All new or modified equipment will be designed to accept a lockout device.

B. Program steps, to be followed in order:
   • BEFORE SHUTDOWN. The authorized employee must know the type and magnitude of the energy, the hazards of the energy to be controlled and the method and means to control the energy. All employees involved shall inform the employee/employees responsible for the machinery/equipment being serviced that the equipment will be locked out and/or tagged off. Each authorized employee involved with the work being performed, must have his or her own lockout device, lock, and tag. Lockout equipment will be specified by the Campus Safety Director
or Director of Facilities Management to assure uniformity and quality of the equipment. Lockout should always be the first choice. Tagout when lockout is not possible.

- **SHUTDOWN.** Prior to the start of any work, machine specific procedures will be reviewed and followed. All machines/equipment must be shutdown and brought to a “zero mechanical/energy state.” The authorized employee shuts down the machine or equipment by normal stopping procedures (pressing the stop button, moving the switch to the “off” position, etc.)

- **ISOLATION.** Isolate the machine/equipment from its energy source(s). The main power switches, circuits or other sources of energy are moved to the “off” position or otherwise rendered inoperative.

- **LOCKOUT.** Apply Lockout/Tagout device(s) to the energy-isolating device. Locks are placed on switches or other energy sources in the “safe” or “off” position. (During a group lockout all members of the group must add their own locks to the lockout. Warning tags should be placed with each lock.) The energy-isolating device must be mechanical and physically prevent the transmission of release of energy. Electrical control circuits are not acceptable.

- **ENERGY RELEASE.** All potentially hazardous stored or residual energy (such as that in springs, elevated parts, rotating flywheels, hydraulic systems, electrical systems, and air, gas, steam, or water pressure, etc.) is relieved, disconnected, or otherwise made safe by repositioning, blocking, bleeding down, etc. (If there is a possibility of re-accumulation of stored energy to a hazardous level, verification of isolation shall be continued until the possibility of such accumulation no longer exists.)

- **TESTING.** After ensuring that no personnel are exposed, an attempt to actuate (test) the equipment with the starting mechanism must be made to assure the “zero mechanical/energy state” has been achieved and that no stored energy remains. Verify the isolation of the machine/equipment prior to the start of servicing or maintenance work.

- **CAUTION:** Return operating controls to the “neutral” or “off” position after the test.

- **OTHER.**
  - Each authorized employee shall remove his or her own locks and tag at the end of their shift, or at the end of the job, whichever comes first.
  - The last employee to remove his or her lockout/tagout device must double check to ensure that all employees are clear of the machinery or equipment before start up. Also, employee should make sure that machine/equipment components are operationally intact.
The onsite employer and the outside personnel (contractors) must inform each other of their respective lockout or tagout procedures.

Lockouts, lockout tags, padlocks or plastic ties will be locked in place on the safety lockout with a padlock or self-locking plastic tie. The lockout tag must have the name of the worker written on it.

When equipment remains out of service at the end of a day or for a long-term situation, another lock and tag will be attached by the Supervisor before all personal locks and tags have been removed.

4. EMPLOYEE TRAINING

Employees authorized to shut down and lock out equipment include the maintenance staff and any affected employee when his or her duties include servicing the equipment.

All authorized employees will receive LO/TO training:
   A. Upon initial job assignment,
   B. When assuming responsibility for a new piece of equipment, and
   C. When the results of an audit or informal inspection by a supervisor indicate deficiencies.

The employer must certify that such training has been given and the certification must contain each employee’s name and dates of training.

5. SCOPE OF TRAINING

The training will include but is not limited to:
   A. The contents of this program
   B. The theory of stored energy
   C. The differences between Tagout and Lockout
   D. The operation of the various devices, with emphasis on proper installation and removal, and
   E. Specifics of the affected equipment
   F. Recognition of applicable hazardous energy sources

6. AUDITS

   A. Supervisors will conduct periodic inspections to ensure implementation of this program. Emphasis will be on the functionality of the devices and the performance level of the individuals. Unserviceable devices will immediately be repaired or taken out of service.
   B. The Director of Facilities Management and Safety Director will conduct an annual audit of the entire program.
   C. The employer must certify that the annual audit has been performed.
7. ADDITIONAL INFORMATION

A. The lockout/tagout kit(s) will be located in an area designated by the Director of Facilities Management. All authorized employees will be made aware of the location(s).

B. Responsibilities:

1. Employees
   - Follow proper procedures for any work requiring lockout/tagout system.
   - Keep the Supervisors informed as to the status of the work being performed.
   - Ensure a Zero Mechanical/Energy State has been achieved before work begins.
   - Inspect equipment prior to use and report unserviceable equipment to a supervisor.
   - Ensure that the proper sequence of events for changing locks at times such as shift changes are followed.
   - Inform all involved (other repair persons, equipment users, supervisors, etc.) that equipment is back in service.

2. Supervisors
   - Coordinate the development of machine specific lockout/tagout procedures.
   - Ensure availability of locks, lockout devices, keys, and tags for employees requiring this equipment.
   - Assure the removal of all locks from machinery or equipment upon the end of the shift or completion of the work, whichever comes first. When machinery or equipment remains out of service for an extended period, a department or other lock must be put into service to preclude start up.
   - Ensure all outside contractors follow the established lockout/tagout procedures utilizing their own equipment as established within the OSHA standard.

3. Director of Facilities Management/Safety Director
   - Conduct and certify required training
   - Conduct annual audits on the equipment, training and the program itself.

C. Suggestions pertaining to corrections, changes, updates, etc. to this plan should be forwarded to the Safety Director.

Enclosure A: LO/TO Audit Certification
## ENCLOSURE A

**LO/TO AUDIT CERTIFICATION**

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<tr>
<th>Certification Type</th>
<th>Inspector</th>
<th>Title</th>
<th>Date</th>
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