



City of Montpelier, Vermont
"The Smallest Capital City in the United States"

LOCKOUT/TAGOUT PROCEDURES

Last Updated July 17, 2003

Lockout/Tagout

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Purpose

This program was created to provide our employees with procedures and policies to properly identify and control hazardous energy sources to ensure their safety and health. This program was prepared in accordance with OSHA regulation Section 1910.147 Control of Hazardous Energy Sources.

Copies of this program will be located at each work facility.

Program Administrator

The program administrator will be responsible for annual review of the program, coordination of employee lockout/tagout training, purchase of equipment and incident review of injuries or illness that involve hazardous energy sources.

Employees should refer their questions or comments about this program to the administrator.

The program administrator is

Eric Ladd, Public Works Department Supervisor

Annual Review

The program shall be evaluated annually in June to determine the effectiveness of this program.

See evaluation form-page 6

Equipment and Machinery Evaluations

All equipment and machinery operated or serviced by employees shall be individually evaluated for an equipment or machine specific lockout procedure using the Equipment and Machinery Evaluation form. The form shall contain the energy sources and proper isolation procedures for the equipment or machinery. An appendix shall be attached to a copy of this program that contains the Equipment and Machinery Evaluations form for each machine or piece of equipment in the department. Machinery and Equipment requiring Lockout/Tagout shall be labeled.

See Sample Equipment and Machinery Evaluations form -page 7

Cord and Plug equipment

Equipment that can be unplugged from an outlet and has no other hazardous energy sources does not fall under the requirements of this program as long as the plug is under the exclusive control of the employee performing service or maintenance. If the employee is unable to maintain exclusive control of the plug, then a plug lock or other suitable energy isolation device must be used in accordance with this policy.

Lockout/Tagout Procedures

- (1) Prior to initiating the lockout/tagout procedure, all employees servicing or providing maintenance on machinery or equipment shall review the *Equipment and Machinery Evaluation* form to inform the employees which energy sources are present and the procedures to follow to isolate the energy sources.
- (2) Notify all affected employees that the equipment or machinery will be locked out or tagged out for servicing or repair.
- (3) If equipment is operating, shut it down by normal means

- (4) Operate switch, valves, or other energy isolation devices so that equipment is effectively isolated from any energy source. All stored energy must be dissipated, bled, or blocked to prevent accidental release.
- (5) Apply appropriate isolation devices with assigned locks and tags. Tags only can be used if a machine cannot be locked.
- (6) Test all switches and operating controls to confirm that all energy sources are isolated. After test, return switches and other controls to “off” or “neutral.”
- (7) Begin service or maintenance work.

Restoring Power

- (1) After service or maintenance work is complete, inspect area to ensure tools are removed, re-install guards and verify that employees are clear of the machinery or equipment.
- (2) Notify employees that lockout/tagout has concluded and of the impending start up.
- (3) The employees that originally placed the locking devices removes locks or tags.
- (4) Commence start up.

Group lockout/tagout

If more than one person is required to lockout/tagout equipment or machinery, each shall place their personal lockout device or tag on the energy isolation device. If the equipment or machine will not accept multiple locks, a hasp may be used.

Shift Change

The employee’s supervisor or the employee originating the lockout/tagout procedure for the specific job, shall be responsible for the transfer of lockout/tagout devices between shift personnel.

Isolation Devices

An inventory of isolation devices and where they are located is included in the Lockout/tagout assignment form. **Locks issued for lockout may only be used for lockout procedures and cannot be used for any other use.**

See Lockout/tagout Assignment Form- page 9

Tags

A tag will be attached to each lock to identify the installer, date, time and authorization of the lockout. If machinery or equipment cannot be locked out, a tag will be used by itself. If machinery or equipment can be locked out, then a lock must be used.

Tags will be of durable construction and labeled in a manner that will remain legible in wet or corrosive environments. Tags will be attached by self locking nylon cable when possible.

Emergency Lock/Tag Removal

Locks or tags will only be removed in cases where the authorized employee who applied the lock or tag is unavailable.

Locks can only be removed by:

Employee's Supervisor

Program Administrator

Employee Information and Training

Any employee authorized or affected by the control of hazardous energy will receive training as required by Section 1910.147(c)(7). Training will include:

- a. An overview of Section 1910.147- *See Appendix A- page 10*
- b. The details of this program
- c. Types and magnitude of hazardous energy sources in the workplace
- d. Methods and means to isolate and control energy sources
- e. Purpose, function and restrictions of energy control procedures

Training will be conducted by a competent person as demonstrated by knowledge and experience. The name of the trainer, qualifications, training materials used, course content and date of training should be documented.

See employee training form- page 8

Employees will be administered a learning exercise to determine their understanding of the program. New hires and transfers will be trained prior to beginning their duties. Employees who do not receive 100 percent on the learning exercise will review incorrect answers.

The attendance record will be retained as proof of training.

See employee learning exercise - page 10

Outside Contractors

The Department Head shall inform all contractors of the elements of this program. Contractors must also make a copy of their lockout/tagout program available to the Department Head. Contractors who fail to follow the program requirements will be asked to leave the premises. Contractors with an insufficient program will not be allowed to begin work until their program meets or exceeds the requirements of this program.

Violation of Lockout/tagout Program

Employees who violate the lockout/tagout procedures will be disciplined according to the personnel policy. Employees will also be required to attend retraining on the procedures or policies that were violated.

Annual Program Evaluation

Program Name:

Lockout/Tagout Procedures

Evaluation Date:

Evaluation Team* :

Name	Title	Department

* Team should include an authorized person from outside department

List injuries or near misses attributable to failure of program or failure to follow program:

Recommendations for additions to procedures/policies with explanation for each:

Recommendations for deletions of procedures/policies with explanation for each:

Recommendations for modifications to procedures/policies with explanation for each:

Description and date of actual modifications made:

Equipment and Machinery Evaluation

Equipment:

Generic pump

Number/Description:

12345

Location:

XXXXXXXX

Check all that apply:

Electrical

Hydraulic

Pneumatic

Gravity

Spring

Other:

Procedures to isolate energy sources:

Shutoff breaker 15 (labeled pump #1) and place locks on breaker switch in the # 2 breaker panel located in mechanical room. Turn off intake and discharge valves and secure with valve locks.

SAMPLE

Equipment and Machinery Evaluation

Equipment:

Number/Description:

Location:

Check all that apply:

Electrical

Hydraulic

Pneumatic

Gravity

Spring

Other:

Procedures to isolate energy sources:

Employee Training For Lockout/Tagout

City of Montpelier

Instructor's Name:

Date:

Address:

Qualifications:

Course Outline:

List of employees receiving training

Employee Name

Signature

Employee Name	Signature

Instructor's Signature

Lockout/Tagout Equipment Assignments

Last Updated:

Each facility shall have lockout/tagout kits which shall be issued to employees on an as need basis. Lockout devices shall bear a tag with the employee's name and other pertinent information in legible print. No employee can use another employee's equipment. Each employee is responsible for the keys to his or her assigned locks. Locks shall only be used for lockout/tagout procedures

Color	Department
Blue	
Yellow	
Red	
Green	
Orange	
Purple	
Black	
White	

Other lockout devices available include:

- Hasps
- Plug locks
- Valve locks
- Valve lock bars
- Chains
- Tags/ nylon straps
- Blanks
- Breaker locks
- Blocks and bars

This equipment shall be located

If the equipment is broken, fails or is lost, contact your supervisor for replacement.

Employee Learning Exercise for Lockout/Tagout

Employee: _____ Signature: _____

Score: Date: _____

1. True False Any trained employee can lock or tag equipment out.
2. True False Before a lock is applied, all workers in the area must be notified.
3. True False Turning off the power switch will remove all hazardous energy from equipment.
4. True False Any sturdy lock can be used for lockout.
5. True False Before locking equipment out, you must know the type(s) of energy it uses, the hazards of that energy and how to control energy.
6. True False Locks must be used if the equipment to be locked out will accept them.
7. True False In group lockout, one person attaches a single lock for the entire work crew.
8. True False When equipment has been isolated from its power source, it may still have energy stored in its system.
9. True False If a worker is not present to remove his lock, anyone can remove it.
10. True False Outside contractors must use our lockout procedures.
11. True False Written energy control procedures must be developed for each different piece of equipment.
12. True False The application of locks or tags in the right places will de-energize the equipment.
13. True False Upon restart of equipment, clear the area of employees and tools.
14. True False Locks and tags must identify the employee who installed them.
15. True False OSHA rarely issues citations for Lockout/Tagout violations.

Appendix A

To view and download the Section 1910.147 Control of Hazardous Energy regulations from the OSHA web site, click on the following link:

http://www.osha-slc.gov/OshStd_data/1910_0147.html

Print out a copy of the standard and mandatory appendices to include with your program.

APPENDIX B – Answers to Employee Learning Exercise for Lockout/Tagout

Employee: _____ Signature: _____

Score:

Date: _____

1. True False Any trained employee can lock or tag equipment out.
2. True False Before a lock is applied, all workers in the area must be notified.
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