OSWEGO TOWN FIRE DISTRICT
LOCKOUT TAGOUT PROGRAM

Purpose:

This program establishes the minimum requirements for the lockout or tag-out of energy isolating devices. ***It shall be used to ensure that the machine or equipment are isolated from all potentially hazardous energy, and locked out or tagged out before employees perform any servicing or maintenance activities where the unexpected energization, start-up or release of stored energy could cause injury.***

Definitions:

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 tag-out, or whose job requires them to work in an area in which such servicing or maintenance is being performed.

Authorized Employee - An employee who locks or implements a tag-out system procedure on machines or equipment to perform the servicing or maintenance on that machine or equipment. An authorized employee and an affected employee may be the same person when the affected employees duties also include performing maintenance or service on a machine or equipment which must be locked or tag-out system implemented.

Responsibility:

All employees shall be instructed in the safety significance of the lockout (or tag-out) program. Only those employees listed in Appendix C are authorized to perform lockout or tag-out. Each new or transferred affected employee and other employees whose work operations are or may be in the area shall be instructed in the purpose and use of lockout or tag-out procedures.

NOTE: All authorized employees must be listed in Appendix C.

Preparation for Lockout or Tag-out:

Identify the machinery or equipment requiring maintenance or repair. Check Appendix A to insure that the machine or equipment does have detailed procedures for locking and or tagging of the equipment. If not, refer to the equipment service manual or make a survey of the equipment to determine the procedures required to insure lockout/tag-out will result in an energy free state.

Cord and plug connected equipment and machinery do not require lockout/tag-out procedures as long as the attachment cord and plug has been disconnected and is under the sole control of the individual performing maintenance/repairs.

When all of the following exceptions are met, specific equipment and machinery is not required to have detailed lockout/tag-out procedures:

1. The machine or equipment has no potential for stored or residual energy or re-accumulation of energy after equipment is shut down.

2. Machine or equipment has a single energy source which can be readily identified and isolated.

3. Isolation and locking out of the energy source shall completely de-energize and de-activate the machine or equipment.

4. The machine or equipment is isolated from that energy source and locked out during servicing and maintenance.

5. A single lockout device will achieve a locked out condition.

6. The lockout device is under the exclusive control of the authorized employee performing the servicing.

7. The servicing or maintenance does not create hazards for other employees.

8. The Employer in using this exception to the standard has no accidents involving the unexpected activation or re-energization of the equipment during servicing.

Machinery and equipment requiring detailed procedures, and those procedures, can be found in Appendix A of this Program.

Sequence of Lockout or Tag-out System Procedure:

1. Notify all affected employees that a lockout or tag-out system is going to be utilized and the reason therefore. The authorized employee shall know the type and magnitude of energy that the machine or equipment utilizes and shall understand the hazards thereof.

2. If the machine or equipment is operating, shut it down by the normal stopping procedure (depress stop button, open toggle switch, etc.)

3. Operate the switch, valve or other energy isolating device(s). **Stored energy (such as that in 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 repositioning, blocking, bleeding down, etc..**

4. Lockout and or tag-out the energy isolating device(s) with assigned individual lock(s) or tag(s).

5. After ensuring that no personnel are exposed, and as a check on having disconnected all energy sources, operate the push button or other normal operating controls to make certain the equipment will not operate.

6. The equipment is now locked out or tagged out.

CAUTION

***** Return operating control(s) to neutral or off position after the test.
***** If maintenance will require the authorized employee to perform electrical repairs, maintenance, installation, or disconnection's of electrical conductors prior to removing other equipment or machinery, the authorized employee shall test for an energy free state with an electrical testing device.\
***** If the service or repair requires exposing live parts of electric equipment, a tag used without a lock shall be supplemented by at least one additional safety measure that provides a level of safety equivalent to that obtained by the use of a lock. (**e.g. Removal of an isolating circuit element, blocking of a controlling switch, or opening of an extra disconnecting device.**)

Authorized employees must check for electrical de-energization of electrical circuits and equipment by use of an electrical testing device.

Additionally electrical lockout tag-out must comply with 29 CFR 1910.333(b), attached as Appendix B to this program.

Restoring Machines or Equipment to Normal Production Operations:

1. After the servicing and or maintenance is complete and equipment is ready for normal production operations, check the area around the machine(s) or equipment to ensure that no one is exposed.

2. After all tools have been removed from the machine or equipment, guards have been re-installed and employees are in the clear, remove lockout and or tag-out devices. Operate the energy isolating device(s) to restore energy to the machine or equipment.

3. Notify affected employees that the servicing or maintenance is complete and the machine or equipment is ready for use.

Removal of Locks or Tags By Other Than Those Who Affix Them:

When the authorized employee who applied the lockout device is not available to remove it, that device may be removed under the direction of the – **a Fire Commissioner or the Fire Chief -** . The following procedures will be used:

1. Verification by the supervisor that the authorized employee who applied the device is not at the facility.

2. Making all reasonable efforts to contact the authorized employee to inform them that their lockout/tag-out will be removed.

3. Have an authorized employee inspect the equipment to assure the re-energization of the equipment will not expose employees to a hazard or damage the equipment.

4. Insure that the authorized employee is informed that their lock has been removed before they resume work at the facility.

Procedure Involving More Than One Person:

In the preceding steps, if more than one individual is required to lockout and or tag-out equipment, each shall place their personal lockout and or tag-out device on the energy isolating device(s). When an energy isolating device cannot accept multiple locks or tags, a multiple lockout or tag-out device (hasp) shall be used. If lockout is used, a single lock may be used to lockout the machine or equipment with the key being placed in a lockout box or cabinet which allows the use of multiple locks to secure it. Each employee will then use their own lock to secure the box or cabinet. As each person no longer needs to maintain their lockout protection, that person will remove their lock from the box or cabinet.

Basic Rules for Using Lockout or Tag-out System Procedure:

All equipment shall be locked out or tagged out to protect against accidental or inadvertent operation when such operation could cause injury to personnel. **Do not attempt to operate any switch, valve, or other energy isolating device where it is locked or tagged out.**

Outside Personnel (Contractors):

Whenever outside servicing personnel are engaged in operations involving servicing or maintenance of machinery with potentially hazardous energy, the outside employer must inform a representative of the Employer of his/her respective lockout/tag-out procedures. Conversely, the Employer representative must verify that the contractor is complying with all applicable regulations concerning lockout/tag-out (29 CFR 1910.147) while working in the Employer=s buildings. Additionally, all affected Employer=s personnel will be informed of and instructed to comply with the outside contractor=s energy control procedures.

Employee Training and/or Re-training Record

Training and/or Re-training 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.

Additional re-training shall be conducted whenever a periodic inspection reveals, or whenever the employer has reason to believe that there are deviations or inadequacies in the employee=s knowledge or use of the energy control procedures.

The re-training shall re-establish employee proficiency and introduce new or revised control methods and procedures, as necessary.

Upon completion, the employee shall sign the following acknowledgment:

AI have received training in my Employer=s Lockout/Tag-out Program, and this Employer=s program has been explained to me, that I have had a opportunity to ask questions, that I thoroughly understand these guides and the use of materials and have been given a copy of this form.@

Date:_____

Name:_____
(print)

Signature:_____

Periodic Inspections:

The Employer shall conduct a periodic inspection of the energy control program at least annually to ensure that the program and the requirements of the standard are being followed.

The periodic inspection shall be performed by an authorized employee other than the one(s) utilizing the energy control program being inspected.

The periodic inspection shall be designed to correct any deviations or inadequacies observed.

Where lockout is used for energy control, the periodic inspection shall include a review, between the inspector and each authorized employee, of that employee=s responsibilities under the energy control program being inspected.

Date of inspection:_____

Authorized employee
inspecting program:_____

Authorized employee
implementing procedure:_____

Equipment/machine:_____

Notes/recommendations:

APPENDIX A

EQUIPMENT TYPE: Shop Air Compressor

LOCATION:

TYPES AND MAGNITUDES OF ENERGY:

Electrical

Rotating Flywheels

Air

TYPES/LOCATION OF ISOLATING MEANS:

Switch Off and Lock (Rotating Flywheel)

TYPES OF STORED ENERGY/METHODS TO DISSIPATE:

Air - Bleed Down

METHOD OF ENERGY CONTROL: (e.g. lock, tag, valve, block, blind)

Lock - Tag

SPECIAL EQUIPMENT: (e.g. circuit tester, air monitor, P.E.)

Circuit Tester

PERSON WHO CONDUCTED SURVEY: Scott Pritchard, Fire Chief

DATE: 10/2005
NOTE: Reference equipment service manual when available.

APPENDIX B

191O.333 Selection and use of work practices.

(a) General. Safety-related work practices shall be employed to prevent electric shock or other injuries resulting from either direct or indirect electrical contacts, when work is performed near or on equipment or circuits which are or may be energized. The specific safety-related work practices shall be consistent with the nature and extent of the associated electrical hazards.

(1) De-energized parts. Live parts to which an employee may be exposed shall be De-energized before the employee works on or near them, unless the employer can demonstrate that de-energizing introduces additional or increased hazards or is infeasible due to equipment design or operational limitations. Live parts that operate at less than 50 volts to ground need not be De-energized if there will be no increased exposure to electrical burns or to explosion due to electric arcs.

NOTE 1: Examples of increased or additional hazards include interruption of life support equipment, deactivation of emergency alarm systems, shutdown of hazardous location ventilation equipment, or removal of illumination for an area.

NOTE 2: Examples of work that may be performed on or near energized circuit parts because of infeasibility due to equipment design or operational limitations include testing of electric circuits that can only be performed with the circuit energized and work on circuits that form an integral part of a continuous industrial process in a chemical plant that would otherwise need to be completely shut down in order to permit work on one circuit or piece of equipment.

NOTE 3: Work on or near De-energized parts is covered by paragraph (b) of this section.

(2) Energized parts. If the exposed live parts are not De-energized (i.e., for reasons of increased or additional hazards or infeasibility), other safety related work practices shall be used to protect employees who may be exposed to the electrical hazards involved. Such work practices shall protect employees against contact with energized circuit parts directly with any part of their body or indirectly through some other conductive object. The work practices that are used shall be suitable for the conditions under which the work is to be performed and for the voltage level of the exposed electric conductors or circuit parts. Specific work practice requirements are derailed in paragraph (c) of this section.

(b) Working on or near exposed De-energized parts.

(1) Application. This paragraph applies to work on exposed De-energized parts or near enough to them to expose the employee to any electrical hazard they present. Conductors and parts of electric equipment that have been De-energized but have not been locked out or tagged in accordance with paragraph (b) of this section shall be treated as energized parts. and paragraph (c) of this section applies to work on or near them.

(2) Lockout and tagging. While any employee is exposed to contact with parts of fixed electric equipment or circuits which have been De-energized, the circuits energizing the parts shall be locked out or tagged or both in accordance with the requirements of this paragraph. The requirements shall be followed in the order in which they are presented (i.e., paragraph (b)(2)(i) first, then paragraph (b)(2)(il), etc.).

NOTE 1: As used in this section, fixed equipment refers to equipment fastened in place or connected by permanent wiring methods.

NOTE 2: Lockout and tagging procedures that comply with paragraphs (c) through (f) of ' 1910.147 will also be deemed to comply with paragraph (b)(2) of this section provided that:

(1) The procedures address the electrical safety hazards covered by this Subpart; and

(2) The procedures also incorporate the requirements of paragraphs (b)(2)(iii?(D) and (b)(2) (iv)(B) of this section.

(i) Procedures. The employer shall maintain a copy of the procedures outlined in paragraph (b)(2) and shall make it available for inspection by employees and by the Assistant Secretary of Labor and his or her authorized representatives.

NOTE: The written procedures may be in the form of a copy of paragraph (b) of this section.

(ii) De-energizing equipment.

(a) Safe procedures for de-energizing circuits and equipment shall he determined before circuits or equipment are De-energized.

(b) The circuits and equipment to be worked on shall be disconnected from all electric energy sources. Control circuit devices, such as push buttons, selector switches, and interlocks, may not be used as the sole means for de-energizing circuits or equipment. Interlocks for electric equipment may not be used as a substitute for lockout and tagging procedures.

(c) Stored electric energy which might endanger personnel shall be released. Capacitors shall be discharged and high capacitance elements shall be short circuited and grounded, if the stored electric energy 'night endanger personnel.

NOTE: If the capacitors or associated equipment are handled in meeting this requirement, they shall be treated as energized.

(d) Stored non-electrical energy in devices that could re-energize electric circuit parts shall be blocked or relieved to the extent that the circuit parts could not be accidentally energized by the device.

(iii) Application of locks and togs.

(a) A lock and a tag shall be placed on each disconnecting means used to de-energize circuits and equipment on which work is to be performed, except as provided-in paragraphs (b)(2)(iii)(C) and (b)(2)(iii)(E) of this section. The lock shall be attached so as to prevent persons from operating the disconnecting means unless they resort to undue force or the use of tools.

(b) Each tag shall contain a statement prohibiting unauthorized operation of the disconnecting means and removal of the tag.

(c) If a lock cannot be applied, or if the employer can demonstrate that tagging procedures will provide a level of safety equivalent to that obtained by the use of a lock, a tag may he used without a lock.

(d) A tag used without a lo&, as permitted by paragraph (b)(2)(Hi)(C) of this section, shall be supplemented by at least one additional safety measure that provides a level of safety equivalent to that obtained by the use of a lock. Examples of additional safety measures include the removal of an isolating circuit element, blocking of a controlling switch, or opening of an extra disconnecting device.

(e) A lock may be placed without a tag only under the following conditions:

(1) Only one circuit~ or piece of equipment is De-energized. and

(2) The lockout period does not extend beyond the work shift. and

(3) Employees exposed to the hazards associated with re-energizing the circuit or equipment are familiar with this procedure.

(iv) **Verification of De-energized condition.** The requirements of this paragraph shall be met before any circuits or equipment can be considered and worked as De-energized.

(a) A qualified person shall operate the equipment operating controls or otherwise verify that the equipment cannot be restarted.

(b) A qualified person shall use test equipment to test the circuit elements and electrical parts of equipment to which employees will be exposed and shall verify that the circuit elements and equipment parts are De-energized. The test shall also determine if any energized condition exists as a result of inadvertently induced voltage or unrelated voltage bacideed even though specific parts of the circuit have been De-energized and presumed to be safe. If the circuit to be tested is over 600 volts, nominal, the test equipment shall be checked for proper operation immediately before and immediately after this test.

(v) **Re-energizing equipment.** These requirements shall be met, in the order given, before circuits or equipment are re-energized, even temporarily

(a) A qualified person shall conduct tests and visual inspections, as necessary, to very that all tools. electrical jumpers, shorts, grounds, and other such devices have been removed, so that the circuits and equipment can be safely energized.

(b) Employees exposed to the hazds associated with renergizing the circuit or equipment shall be warned to stay clear of circuits and eqmpment.

(c) Each lock and tag shall be removed by the employee who applied it or under his or her direct supervision. However, if this employee is absent from the workplace, then the lock or tag may be removed by a qualified person designated to perform this task provided that:

(1) The employer ensures that the employee who applied the lock or tag is not available at the workplace, and

(2) The employer ensures that the employee is aware that the lock or tag has been removed before he or she resumes work at that workplace.

(d) There shall be a visual determination that an employees are clear of the circuits and equipment.

APPENDIX C

AUTHORIZED PERSONS: Scott Prtichard, Dan Prtitchard, Barry Pritchard

Lock #/color Rick Batchelor, Tim Pritchard, Greg Herrmann

Additional people as assigned by the fire chief.

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