

## Chapter 9-2

### Standard Operating Guideline for Lockout/Tagout

Effective Draft

rev. 08/01/05

#### 1. Purpose

This SOG explains the concept of Lockout/Tagout, including its purpose and how it applies to PVFD operations.

#### 2. Scope

This SOG applies to all PVFD firefighters or other personnel who may be involved in work on projects that involve the need to render safe energy sources in order to do the project safely. This includes work that may occur as part of an emergency incident or non-incident projects.

#### 3. Introduction

OSHA CFR 1910.147 requires industry to have a procedure for rendering safe powered equipment before service or other work is done where the equipment operates. This is to ensure that the equipment cannot accidentally become powered, energized, or operated by another person while someone is working in the equipment's danger zone. It is the responsibility of the employer to implement the policy/procedure. It is the responsibility of the employee to use the procedure.

In industry, a formal Lockout/Tagout procedure involves the use of locks and tags to mark and ensure that equipment is kept de-energized. PVFD is not bound by law to abide by this standard, but its understanding and use is beneficial for PVFD personnel to maintain safety. PVFD's Lockout/Tagout program will use locks and tags as much as possible, given the circumstances at hand. During emergency incidents, there may not be enough time or personnel available to use locks or tags. This is why it is imperative that all personnel understand the importance of this program and strictly adhere to it. Failure to do so could mean injury or death.

#### 4. Definitions

-Lockout: To isolate a machine from its energy source(s) using mechanical devices that prevent the machine from becoming energized. A lockout "lock" may include a device that physically prevents a person from operating the controls or power source of the machine.

-Tagout: To post conspicuous signs ("tags") to notify people that a machine and its energy sources are de-energized and must remain so until the tag is removed. The tag must have the identity of the person who placed it.

-Machine Danger Zone: The area(s) in, on, near, or in the path of a piece of powered equipment, which if a person enters while the machine is powered, could cause injury or death to the person.

-Power Sources: Any source of energy that may cause a machine to operate, or is a product of the machine while it is operating including: electricity, stored pressure, mechanical power, stored mechanical energy, gravity, heat, chemicals, etc.

#### 5. PVFD Lockout/Tagout Rules

1. PVFD personnel shall avoid working in the danger areas of machines, equipment, or other energized items if at all possible.
2. If work must be done in a Machine Danger Zone, all reasonable precautions shall be taken to prevent accidental operation of the machine or uncontrolled energy release.
3. If such work must be done, it will be planned prior to being done, and be done with due haste to minimize the exposure to potential danger.
4. When work is done in areas where moving parts may injure a person, a mechanical blocking device shall be used to prevent the machine from moving.
5. When work is to be done near electrical equipment, it must first be de-energized, bled of residual power, and tested to make sure it is dead.
6. Any machine controls that are not under the immediate supervision of the person doing the work must be locked and tagged to prevent operation by other people.
7. During emergency incidents, if a machine control can't be locked out, it must be tagged and monitored by a dedicated guard. The guard must be in constant contact with the person doing the work and the IC. The guard shall only operate the controls upon direct, confirmed orders of the person doing the work and the IC. If more than one person requests the guard to secure the controls, the guard shall not re-energize or change the controls until he receives confirmed approval from ALL people who asked him to de-energize it. The IC shall also keep a list of all people who have requested the guard to secure the control. The machine shall not be re-energized or have the guard leave his post until ALL people that requested it to be secured have confirmed with the IC AND the guard that they no longer need the machine secured.
8. Any time there is a change in status of the power or energy sources to a machine, all personnel present shall be notified before the change occurs. It must be verified that all personnel are aware of the pending change, and that everyone is in a safe position prior to the change.
9. During a structure fire, the presence of electrical power to a structure shall not impede fire attack unless it is obvious that the fire cannot be safely attacked without first removing the electricity. In normal fire situations, it shall be a priority to secure the building's utilities as soon as possible by shutting off main disconnect switches, valves, or breakers. Unless there is a compelling need for security of the electrical power, it shall not be necessary to lockout/tagout or post a guard in these situations.
10. Only the person who de-energized the machine has the authority to re-energize it, and only after receiving approval from ALL who asked for it to be de-energized.

## **6. Basic Steps to Lockout/Tagout for Fire Dept. Use**

1. Locate and identify all sources of power or potential energy that are part of the machine.
2. Notify all affected personnel that the machine will be de-energized.
3. De-energize the machine and bleed off any stored or residual power. Place mechanical blocking devices as needed.
4. Place a lock and tag, or post a guard as appropriate at all power sources.
5. Test to make sure the machine is de-energized.
6. Do the work.
7. Inspect the work area to make sure the machine can be safely re-energized.
8. Notify all affected personnel that the machine will be re-energized.
9. After approval from all supervising personnel, re-energize the machine.