

FIREHOUSE®

Weekly Drill

DRILL #99: LOCKOUT/TAG OUT

Introduction

How well are we at performing lockout/tag out? The Occupational Safety and Health Administration (OSHA) established the "Control of Hazardous Energy" 29CFR part 1910.147, better known as Lockout/Tag Out, in 1990.

The intent and design of this code was to protect employees, who may be dealing with the servicing or maintenance of machinery and having it start-up accidentally or release stored energy. It is this accidental start-up or release of stored energy that causes severe injuries or death. This is generally the time the fire department gets involved.

The fire departments that have a better understanding of this code are the ones that have confined-space rescue responsibilities. These teams are required to follow Lockout/Tag Out to the tee. If you find yourself working with confined-space teams, you need to become very familiar with this code. However, all firefighters need to understand the hazards of not following this code. Safety officers need to have a good handle on this code as well, as firefighters look to them to keep them safe.

What are the sources of energy that we need to be concerned with?

1. Electrical Energy – Electrical energy is often the one everyone thinks of first. Keep in mind that electricity comes in two types, generated and static.

2. Mechanical Energy – Mechanical is another energy that can be found in transitional or rotational.

3. Thermal Energy – Thermal has its own uniqueness because you typically cannot turn it off or eliminate it; you can only control it.

4. Potential Energy – Potential is like thermal energy in that we cannot turn it off. It has to be dissipated or controlled. Potential energy can be in one of three forms: pressure, spring, or gravity.

A. Pressure – hydraulic pressure, pneumatic pressure and vacuum pressure

B. Spring – this is a mechanism that can be found in a typical industrial setting. A simple way of looking at this would be to think of it as a large mouse trap.

C. Gravity – just keep in mind that anything that goes up, must come down. An elevator is a good example.

Lockout or Tag Out, that is the question. As a general rule, lockout is the preferred method. Here are some of



the reasons for this:

- Once a lock is placed on a piece of machinery or other object, it becomes hard to bypass, unless you have the key and can remove the lock. A tag can easily be removed.
- A tag can only warn someone as to the severity or nature of the incident, but cannot stop them from activating the device. A lock can.
- Tags can be, and often are, damaged by the environmental or physical hazards that say a chemical or abrasive pose to them.
- With tags, we hope everyone can read them, but there are a lot of individuals who cannot read them for one reason or another, including not understanding the language it is written in.

However, when Tag Out is preferred over Lockout, it has to provide the worker with the same level of safety that the lockout procedure would provide. But in any event, the bottom line is understand the methods and techniques being used to render equipment safe, as there are a significant number of methods that can be and are being used.

—Prepared by Russell Merrick