AURORA PICTURES

AP#3852

Lockout/Tagout

It Would Have Saved His Life

Leader's Guide

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Introduction

This Leader's Guide is designed to help you conduct a successful safety presentation. This Guide includes the following material:

Program Overview: This is a summary of the video program content. If the program content is discussed before the video is presented, the entire program will be more meaningful and successful.

Preparing for and Conducting the Presentation: This information will help you prepare the training setting, help you relate the program to your specific work situation, and provide objectives for focusing your presentation.

Discussion Ideas: A number of ideas are presented that can help encourage discussions related to lockout/tagout.

Review Questions and Answers: The quiz may be copied and given to participants to document how well they understood the information that was presented. Answers to the review questions are provided separately.

Video Overview

Introduction

Lockout/Tagout…It Would Have Saved His Life, begins with a powerful, true story of a man named Doug Gatewood, who was killed in a workplace mishap that would have been prevented by lockout/tagout. The story is told through interviews with Doug's son, and a man who was a close friend of Doug's.

Purpose of Lockout/Tagout

The purpose of Lockout/Tagout is to prevent a piece of equipment from accidentally starting up or releasing stored energy while a person is performing maintenance or repairs.

Hazardous Energy Sources

Lockout/Tagout applies to many kinds of energy sources, including electrical, pneumatic, hydraulic, thermal, chemical, pressurized gases, liquids and gravity. All of these energy sources can be hazardous and need to be taken into consideration when lockout/tagout is performed.

Authorized and Affected Employees

For the purposes of lockout/tagout, employees are classified in two ways. The Authorized Employee is the person who has been designated by the company to perform the lockout/tagout procedure. The Authorized Employee is often the same person who does the maintenance or repairs.

If you are not an Authorized Employee, you are designated as an Affected Employee – those who work with or near the equipment to be locked out, or pass through the area where a lockout is being performed.

Energy Control Plan

The Energy Control Plan contains all the information an Authorized Employee needs to know before doing a lockout. The Plan should include a comprehensive description of the company's lockout procedures and up to date information regarding hazards in your workplace. It should also list those who are authorized to perform lockout/tagout.

Energy Isolating Devices

Energy Isolating Devices are mechanical devices that physically prevent the transmission or release of energy, such as: switches, valves, circuit breakers, blocking and so forth. When in doubt, check your company's Energy Control Plan.

Lockout/Tagout Procedures

- **Prepare and Notify** - Make sure you are familiar with the equipment, the sources of energy to the equipment and the hazards they present, as well as the location of all energy isolating devices. Then tell Affected Employees that you're going to do a lockout and tell them why.

- **Equipment Shutdown** – Next, shut down the equipment using the normal shut down procedure. If it's a switch, turn it off. If it's a stop button push it. Remember, there are many sources of energy besides electrical energy.

- **Isolate Energy Sources** - Some types of equipment have multiple energy sources. There could be a circuit breaker, disconnect switch or shut off valve some distance from the equipment. As long as they remain open or in the "on" position, they're still supplying energy to the equipment. So be sure you know where all energy sources are located, so you can isolate them.

- **Lock Out Energy Sources** - After isolating the equipment from its energy source, attach a lockout device at that source. The lockout device should be designed and approved for locking a specific type of energy source, from circuit breakers to switches to valves to moving parts. Next, attach a lock to the lockout device. Each authorized employee is assigned their own padlock or combination lock. The lock is to be used for lockout purposes only, and no one else is allowed to use the lock.

- **Tags** - The lock should identify the authorized employee who placed it in use. In most cases this is done by attaching a tag. Just like the locks that are used for lockouts, the tags must be supplied by your employer and must identify the authorized employee who has shut the equipment down. The tags must be able to withstand the elements of the environment they are used in and must withstand 50 pounds of pressure. They must have a standard color, shape and size so that they are easily recognizable. The tag warns that the equipment is not to be activated by anyone other than the person who attached the lock and tag.

- **Group Lockout** - In some cases there may be more than one employee working on the equipment. In those situations, each employee can be protected by using their own lock. There are devices that enable you to attach more than one lock to switches, valves, and other energy isolating devices. One person in the work group will have the primary responsibility for the lockout, but each lock must be removed by the person who attached it. Once you've removed your lock, never

re-enter a hazard area or attempt adjustments on the equipment without re-attaching your lock.

- **Shift Changes** - When people working the next shift arrive, tell them that the equipment has been locked out and why. They need to attach their own locks before you remove yours. That ensures that the lockout is not interrupted.

- **Outside Contractors** - When outside contractors are working at your workplace, your company and the contractor must exchange information about their lockout policies and procedures. It is recommended that the contractor adhere to the company's lockout procedures.

- **Tagout** - Some pieces of equipment can't be locked out. In these cases, you must use a tag to warn that injury may result by activating the equipment. Remember, *only* using a tag is allowed *only* if the equipment cannot be locked out. This equipment will be identified in the Energy Control Plan.

- **Release Stored Energy** - Even though the equipment may appear inoperative, there may be stored energy that needs to be released. Stored energy can be found in capacitors, springs, rotating parts, chains, blades and elevated components. It could also include pressurized gases, steam or liquids. They all store some type of energy. That's why the energy needs to be released before any maintenance can be done. The key is to check your Energy Control Plan to determine what kind of energy needs to be released for the specific equipment you're working on.

- **Verify Lockout** - Make sure everyone in close proximity knows you're going to try and operate the equipment. Then try to activate the equipment using the normal off/on controls. If nothing happens, you know that the equipment is totally isolated from its energy sources, which means you can turn the controls back to the "off" position and perform maintenance and repairs. If you need to re-energize a piece of equipment and then make additional adjustments or repairs, be sure to do the entire lockout/tagout procedure again.

- **Re-energize Equipment** - When the repair is done it's time to get the equipment up and running again. In most cases, it's a matter of reversing the order of the lockout/tagout procedure. But as always, follow your company's lockout procedures. Make sure all tools, braces and blocking devices have been removed. Then do any reassembly and replace any guards that have been removed. Next, check to see that all operating controls are in the "off" position. Make sure that everyone is standing clear. Now you can remove the lockout device and test the equipment.

Conclusion

Workers who are injured on the job from exposure to hazardous energy lose an average of 24 workdays for recuperation. But the most important numbers of all, are the over 50 thousand injuries and the 120 or more deaths that are prevented each year by workers following proper lockout/tagout procedures.

Interview Statements

The video ends with brief interview comments about the importance of Lockout/Tagout, including the following statement by Doug's son: "My dad was killed 22 days before his 40th birthday. Lockout/tagout would have saved his life."

Preparing for and Conducting the Presentation

- Before presenting the video, review each section of this Leader's Guide and view the video before the presentation.
- Make sure the presentation area is quiet, has good lighting, unobstructed access and good climate control.
- Check the seating arrangement and the audiovisual equipment to ensure that all participants will be able to see and hear the presentation. If extension cords are to be used, secure them in such a way that they won't become a tripping hazard.
- Begin the meeting by welcoming the participants. Introduce yourself and give each person the opportunity to become acquainted if there are new people joining the training session.
- Make everyone aware of the importance your organization places on protecting employee's health and safety and how everyone must be an active member of the safety team.
- Make it clear that the objective of ***Lockout/Tagout – It Would Have Saved His Life***, is to do the following:
    1. Clearly explain the purpose of lockout/tagout
    2. Describe employee roles and responsibilities, including who is authorized to perform lockout
    3. Describe the purpose and contents of an Energy Control Plan
    4. Demonstrate Lockout/tagout procedures, performed step by step on a typical industrial machine
    5. Explain special lockout situations, such as multiple lockout, shift changes and outside contractors.
- Next, introduce the video and play it without interruption.
- After the video is complete, you can tailor discussions to your specific situation. You can refer to the Discussion Ideas section of this Guide for additional ideas. If you want to review the content of the program with participants you can refer to the Program Overview in this Guide.
- After the discussion, give a copy of the Quiz included in this Guide to each participant and ask them to complete the questions.
- Maintain copies of an attendance record and each participant's quiz as written documentation of the training.

Discussion Ideas

In addition to discussion topics you may have planned, the following questions may be used to encourage discussions related to lockout/tagout.

1. Does anyone have a story about mishaps that *could have been*, or *were prevented* by lockout/tagout?
2. What do you think are some of the most common reasons that people avoid using lockout/tagout?
3. Why is it important for Affected Employees to understand lockout/tagout?

3852 LOCKOUT/TAGOUT:
It Would Have Saved His Life
Quiz

Name_____Date_____

1. The purpose of lockout/tagout is to:
a. Prevent employees from entering a restricted area
b. Identify hazardous chemicals in the workplace
c. Prevent equipment from being removed from a facility
d. Prevent equipment from accidentally starting during repair or maintenance

2. Lockout/tagout is only effective for equipment that is powered by electricity.
a. true
b. false

3. The person who is designated by the company to perform the lockout/tagout procedure is the:
a. Affected Employee
b. Designated Employee
c. Authorized Employee
d. Certified Employee

4. Which of the following is not considered an energy-isolating device?
a. pressure gauge
b. circuit breaker
c. disconnect switch
d. shut off valve

5. A tag must be attached securely enough to withstand _____ pounds of pressure.
a. 10
b. 20
c. 50
d. 100

6. Employees leaving at a shift change should remove their locks _____ the oncoming shift attaches their locks.
a. at the same time as
b. before
c. after

7. In a group lockout, the authorized employee removes all locks after everyone has left the area.
a. true
b. false

8. It may still be necessary to release stored energy in a system even after the system has been isolated from its energy sources.
a. true
b. false

ANSWERS TO THE QUIZ

1. d

2. b

3. c

4. a

5. c

6. c

7. b

8. a