

LOCKOUT/TAGOUT: *WHEN EVERYONE KNOWS*

This easy-to-use Leader's Guide is provided to assist in conducting a successful presentation. Featured are:

INTRODUCTION: A brief description of the program and the subject that it addresses.

PROGRAM OUTLINE: Summarizes the program content. If the program outline is discussed before the video is presented, the entire program will be more meaningful and successful.

PREPARING FOR AND CONDUCTING THE PRESENTATION: These sections will help you set up the training environment, help you relate the program to site-specific incidents, and provide program objectives for focusing your presentation.

REVIEW QUESTIONS AND ANSWERS: Questions 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.

ATTENDANCE RECORD: Document the date of your presentation as well as identify the program participants. The attendance record may be copied as needed.

INTRODUCTION

OSHA issued the Control of Hazardous Energy Policy in 1989 to address the rash of deaths and injuries suffered by workers who maintain and repair equipment. Also known as the "Lockout/Tagout Standard," this regulation requires that lockout procedures be implemented to prevent equipment from releasing its stored energy while it is being repaired or maintained.

This video demonstrates proper procedures for both locking out equipment and then getting the equipment up and running again after lockout. Group lockout procedures and two accident re-enactments are also included in the program.

PROGRAM OUTLINE

BACKGROUND

- Lockout/tagout is implemented by isolating and disconnecting a machine or piece of equipment from its energy source and then locking it out with a special lock and tag.
- Lockout/tagout works for all types of energy, including electric, mechanical, pneumatic, hydraulic, thermal and gravity.
- Some pieces of equipment have more than one energy source that must be locked out during maintenance or repair.
- All procedures for locking out equipment in your facility must be included in the company written energy control plan.

EMPLOYEE CLASSIFICATIONS

- "Authorized employees" are those persons actually responsible for physically locking out equipment.
- "Affected employees" are those persons who either operate equipment that is being locked out or work in the area where the lockout is taking place.

- “Other employees” are those who may not be directly affected by the lockout but must know how to recognize when a lockout is in progress.

LOCKOUT/TAGOUT PROCEDURES

- First, make sure you are familiar with the machine you are locking out, the type of energy it uses and the potential hazards.
- Notify all affected employees that you will be doing a lockout and the reason for it.
- Shut down the equipment with the normal on/off control.
- Isolate all energy sources with the energy-isolating device. Energy isolating device refers to mechanical devices that physically prevent the release or transmission of energy, not push button switches or selectors.
- Use the lock provided by your employer to lockout the energy source and then attach a tag at the lockout point.
- You may need to bleed lines, open or close valves, drain pipes, release tension on springs, etc. to control any stored or secondary energy that may be present.
- Verify the lockout by pushing the start button or activating the normal on/off controls and seeing if the machine will operate.
- Make sure you don't bypass the lockout. If you need to energize the equipment to make additional adjustments, make sure you lock it out again.

TAGS

- Tags used at your facility should have a standard color, shape and size.
- They must identify the person who attached it along with the time and date of attachment.
- Tags must be durable enough to withstand the environmental conditions that are present; they must be attached securely enough to withstand 50 pounds of pressure.

GETTING THE MACHINE UP AND RUNNING AGAIN

- Make sure the area is clear of personnel and tools, then reassemble the equipment. Remove all blocking or braces and replace all guards.
- Before re-energizing the machine, make sure the start buttons or operating controls are in the off position and that everyone is clear of any hazard from the machine.
- Remove the lock.
- Test the machine.
- Notify affected employees that the lockout has been removed.

GROUP LOCKOUT

- A group lockout takes place when there is more than one person working on the equipment or system that is activated by an energy isolating device.
- In a group lockout, one person will have primary responsibility for the lockout, but each person must attach a lock to the energy isolating device.

- Each person must remove his own lock. Never re-enter a hazardous area or attempt adjustments on equipment without reattaching your lock.
- Employees who are leaving at shift change should not remove their locks until the arriving employees have attached theirs.
- If outside contractors are in your workplace, your company and the contractor must exchange information about their lockout policies.

OPENING ACCIDENT

- Larry began to repair the painting line without locking out the equipment. Aaron didn't know Larry was there and started the line.
- Larry's hand got caught in the line and was injured.
- Larry took the short cut of not locking out the equipment because no one was around and he thought he could get the work done quickly.

Lessons:

- Larry should have had his own lock with him; never loan your lock to anyone else.
- He should have informed Fran and Aaron that he was working on the equipment.
- He should have carefully followed the correct lockout procedures.

CLOSING ACCIDENT

- As he and two others completed maintenance on a large press, Larry removed his lock and went to another work area.
- Realizing he left a tool back in the press, he went back in the press to retrieve it.
- When the other workers started up the press, Larry was caught inside of it.

Lessons:

- Larry should have made sure all of his tools were removed from the work area and that all guards were replaced before leaving the area.
- Someone should have been in a position where he could view the machine as well as the person controlling the energy before the machine was started up again.
- Larry should have gone back to the lockout point to reattach his lock and he should have notified the others that he had returned to the area before going to the press for the tool.

PREPARE FOR THE SAFETY MEETING OR TRAINING SESSION

Review each section of this Leader's Guide as well as the videotape. Here are a few suggestions for using the program:

Make everyone aware of the importance the company places on health and safety and how each person must be an active member of the safety team.

Introduce the videotape program. Play the videotape without interruption. Review the program content by presenting the information in the program outline.

Copy the review questions included in this Leader's Guide and ask each participant to complete them.

Copy the attendance record as needed and have each participant sign the form. Maintain the attendance record and each participant's test paper as written documentation of the training performed.

Here are some suggestions for preparing your videotape equipment and the room or area you use:

Check the room or area for quietness, adequate ventilation and temperature, lighting and unobstructed access.

Check the seating arrangement and the audiovisual equipment to ensure that all participants will be able to see and hear the videotape program.

Place or secure extension cords to prevent them from becoming a tripping hazard.

CONDUCTING THE PRESENTATION

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.

Explain that the primary purpose of the program is to help viewers understand lockout procedures and how they can prevent accidents when maintaining or repairing equipment.

Introduce the videotape program. Play the videotape without interruption. Review the program content by presenting the information in the program outline. Lead discussions about dangerous situations that may have occurred as the result of faulty lockout procedures or shortcuts. Use the review questions to check how well the program participants understood the information.

After watching the videotape program, the viewer will be able to identify the following:

- The procedures for both locking out a machine and getting it back up and running after lockout;
- Group lockout and its importance in preventing accidents;
- The lessons to be learned from the accidents in the video.

**LOCKOUT/TAGOUT:
WHEN EVERYONE KNOWS
REVIEW QUESTIONS**

Name _____ Date _____

The following questions are provided to determine how well you understand the information presented in this program.

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

2. "Other employees" are required to be able to _____.
 - a. perform lockout when authorized persons are absent
 - b. operate machinery when affected persons are absent
 - c. recognize when a lockout is in progress
 - d. do nothing because they aren't affected

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

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

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

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

7. It may still be necessary to control stored energy in a system even after the system has been isolated from its main power source.
 - a. true

b. false

8. What should Larry have done before re-entering the press to get his tool that could have prevented his accident?

- a. reattached his lock at the lockout point
- b. shut down the equipment with the on/off control
- c. informed the others he had returned to the area
- d. both a and b
- e. both a and c

ANSWERS TO THE REVIEW QUESTIONS

1. b

2. c

3. a

4. c

5. c

6. b

7. a

8. e