

HIGH-IMPACT SAFETY AWARENESS

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 cite 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

Ever since the Industrial Revolution, machines have steadily become more important to modern industry. With this reliance on machines has come the need for better methods to operate them safely. Over the years, safety devices have been added to machines and work procedures designed so that we can work safely. While these safeguards continue to improve, the importance of each machine operator's good attitude toward safety has always stayed the same.

This program re-creates ten industrial accidents involving heavy machinery and metal work to illustrate the necessity of following proper safety procedures and maintaining a good safety sense. The program participant will learn how to safely operate brake presses, grinders, metal cutting shears and other machines.

The following four points are stressed to the viewer throughout the program:

- ❶ Understand the machine's operations and the potential hazards involved;
- ❷ Acquire proper training and authorization before operating any tool or machine;
- ❸ Always wear the correct personal protective equipment and clothing for the job;
- ❹ Follow safe operating procedures at all times and protect yourself from the machine's actions.

INTRODUCTION

Today's sophisticated systems of production and delivery constantly challenge employees to work safely. Of the 122 million people in the work force, 23 lose their lives and another 9,000 suffer disabling injuries every day*. Statistics indicate that many of these injuries are the result of our own unsafe acts. Accepting responsibility for personal safety and a good safety attitude are the keys to avoiding accidents in the workplace. We must value our well being enough to protect ourselves from injury by following accepted policies and practices of our jobs. *Statistics are from the National Safety Council's 1994 Accident Facts.

This dynamic program re-creates accidents that result from common employee safety errors to illustrate the importance of making safety a personal priority. From ladder safety to lockout/tagout, the viewer will be provided with valuable lessons relating to a wide array of safety topics.

PROGRAM OUTLINE

3 RULES FOR PERSONAL PROTECTION

- ❶ **Always take responsibility for your personal safety.**
- ❷ **Never attempt to perform any task unless you have been trained and authorized.**
- ❸ **Always follow job procedures and company rules.**

PERSONAL PROTECTIVE EQUIPMENT

- When PPE is required, make sure it is in good condition and the right type for the task.
- While safety glasses offer limited protection, goggles and full-face shields are necessary for more hazardous jobs.
- Face shields must always be worn in conjunction with other equipment.
- Respirators can provide breathing protection for hazards such as dusts, fumes, organic vapors and oxygen deficiency.
- You must be trained, fitted and authorized to use a respirator and know how to maintain it properly.
- Signs designate areas where hearing protection must be worn at all times.
- Wear hard hats correctly so that any striking force is distributed evenly over the hat's suspension.
- Because there are so many types of gloves, select and use the right type for the job you are doing.
- Choose steel toe shoes, boots and specialized footwear according to the hazards of the task.
- Ask your supervisor if you have any questions regarding personal protective equipment.

LIFT TRUCK SAFETY

- Forklift drivers must be trained and authorized before operating a lift truck.
- Never assume the lift truck operator can see you; maintain a safe distance at all times when walking near forklifts.
- Pedestrians should stop, look and listen at intersections for forklift traffic to make sure they have a clear path before proceeding ahead.
- If the forklift is designed to seat only the driver, don't allow any additional persons to ride.

HAZARD INFORMATION

- Learn the meaning conveyed by warning signs and tags in your work area and take the appropriate safety precautions.
- Be familiar with your facility's emergency plan, which includes knowing the location of fire and emergency exits and how to use your facility's alarm system.
- Material Safety Data Sheets (MSDS's) provide information regarding PPE, storage and handling procedures for hazardous chemicals.
- Other information concerning a substance's hazardous properties can be found on its container label.

AVOIDING BACK INJURIES

- Using proper lifting procedures can prevent most common back injuries.

- Position yourself close to the load and get a firm grasp on the load you intend to lift.
- Rise slowly from the knees. Don't turn while lifting; change directions after straightening up.
- Always lift with your knees and not your back.
- Don't be embarrassed to ask for help picking up a load that is too heavy.
- Protect your hands with work gloves if objects to be lifted are rough or have sharp edges.

SLIPS, TRIPS AND FALLS

- Wear shoes with good traction in areas where slippery surfaces may be present.
- When climbing stairs, keep one hand on the safety rail at all times.
- Maintain good visibility when carrying large objects.
- Before working above the ground, employees must have the proper fall protection training and authorization.
- Always know the right ladder for the job and use it correctly.
- Have an assistant help steady the ladder or tie the ladder off to avoid falls.

WORKING WITH POWER TOOLS

- Before using any power tool, make sure it is in good operating condition.
- Check the tool's cord for cracks and abrasions; make sure the plug isn't cracked or missing the ground pin.
- Water and moisture present additional hazards when using power tools.
- Some environments require special spark and explosion-proof tools.
- The condition of abrasive disks and their attachments must be checked thoroughly for damage before use.

LOCKOUT/TAGOUT

- Lockout/tagout procedures should be performed during maintenance, installation, adjusting or routine checkout of any piece of energized equipment.
- Your supervisor can provide the complete written lockout/tagout procedure.
- Employees must be trained and authorized before conducting lockout procedures.
- Machines powered by more than one form of energy must be checked for complete lockout/tagout.

WRITTEN PERMITS

- Confined Space Entry Permits are required for areas designated as confined spaces.
- A qualified person must test the air quality in the confined space and then determine the precautions to be taken.
- Such procedures as lockout and line breaking are used to control the space's hazards so it is safe for work.
- Hot Work Permits are required for welding and many other hazardous tasks.

ACCIDENTS AND THEIR LESSONS

ACCIDENT 1: Worker loses concentration and his hand is crushed while operating a brake at the plant.

LESSON: *Don't allow alcohol and drug abuse or problems at home affect your good safety attitude. Always maintain responsibility for your personal safety!*

ACCIDENT 2: Maintenance electrician falls from aluminum ladder after contacting a live wire while repairing a power drop.

LESSON: *Always use proper equipment and tools required for the job at hand; always de-energize circuits before working on them.*

ACCIDENT 3: Man falls from ladder that is not secured.

LESSON: *Ladders must be tied off whenever possible. Have an assistant help steady the ladder if it can't be secured otherwise. Always follow safe job procedures!*

ACCIDENT 4: Machine operator, ignoring his company's clothing rule, injures head at drill press after his glove and sleeve are caught in the drill's rotating action.

LESSON: *Remove gloves and avoid wearing loose clothing around moving equipment. Follow company policy all the time!*

ACCIDENT 5: Maintenance crewmembers disregard danger sign and succumb to oxygen deficiency after entering a confined space.

LESSON: *Understand the meaning conveyed by safety signs in the workplace and take the appropriate actions that they advise.*

ACCIDENT 6: Unauthorized/untrained maintenance workers volunteer to re-set the chiller circuit. The motor-starter enclosure shorts-out creating an explosion which blows the man off the platform and severely burns his assistant.

LESSON: *Never perform any task unless you have been trained and authorized.*

ACCIDENT 7: An electrician, wearing safety glasses, cheats a safety lock and energizes a disconnect switch with the door open. It shorts out, creating an arc and throws slag in his face.

LESSON: *Because he was wearing his safety glasses as required by his company, the man's sight was saved.*

ACCIDENT 8: Rider's knee is shattered when it strikes a steel column that the forklift is passing.

LESSON: *Never hitch a ride on a forklift. If the machine is designed for one person, safety rules and company policy prohibit any additional riders.*

ACCIDENT 9: A worker in a piston ring plant chose not to wear his gloves as required as he pulled metal stringers from the rings. He suffered painful cuts on his hands.

LESSON: *Always wear proper gloves required for your job.*

ACCIDENT 10: A worker using a manlift to service overhead light fixtures chose to ignore his company's rule concerning personal fall protection equipment. He falls to his death on the concrete floor below.

LESSON: *Always follow your company's work rules, including PPE required for specific tasks.*

ACCIDENT 11: Worker loses several teeth when the grinding disc he is using comes apart and strikes him in the mouth.

LESSON: *Make sure you are using a safe, well-maintained tool. Grinders, drills and other tools with attachments must be checked thoroughly before the job begins.*

ACCIDENT 12: A welder decides to cut the top out of a 55-gallon drum. He knew it was dangerous but thought someone had cleaned it out earlier. It exploded and killed him. He also violated his company's Hot Work permit rule by doing this work without a permit.

LESSON: *Don't make assumptions about safety. Always take responsibility for your own safety and follow company rules.*

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 the viewer develop a good safety attitude and take responsibility for his own safety.

Introduce the videotape program. Play the videotape without interruption. Review the program content by presenting the information in the program outline. Lead discussions about related accidents or dangerous situations. 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:

- Three basic safety rules for a good safety attitude;
- The importance of proper PPE;
- Safety precautions for working with electric tools;
- Where to find information on hazards in work areas;
- Forklift safety and why it is critical;
- Confined spaces, lifting, and good housekeeping.

**HIGH-IMPACT SAFETY AWARENESS
REVIEW QUESTIONS**

Name _____ Date _____

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

1. Name the three basic safety rules that are stressed throughout the program.

2. The maintenance workers involved in the explosion while re-setting the chiller violated which company policy?

3. Which two of these sources provide information about hazardous chemicals used in industry?
 - a. college chemistry textbooks
 - b. Material Data Safety Sheets
 - c. container labels
 - d. the national poison hot line

4. When lifting you can prevent common back injuries if you _____
 - a. jerk the load from the ground to your chest in one motion
 - b. turn with the load during the lifting process
 - c. always lift with the knees and not the back

5. The worker whose glove and sleeve caught in the rotating drill press was injured because he violated the company's clothing policy.
 - a. true
 - b. false

6. Face shields are necessary for many hazardous tasks and must be _____.
 - a. worn in conjunction with other protective eye wear
 - b. coated in a fireproof material
 - c. ventilated to allow breathing

7. Lockout/tagout procedures are required for energized equipment when performing _____.
 - a. maintenance
 - b. installation
 - c. adjustments
 - d. all answers

8. Which of the following is not a recommendation for using a ladder?
 - a. have an assistant help steady the ladder if available
 - b. place cardboard under the ladder if it wobbles
 - c. tie the ladder off so that it is steady
 - d. choose the right ladder for the job

9. Why should pay close attention to warning signs in the workplace?

ANSWERS TO THE REVIEW QUESTIONS

1. **❶** Always take responsibility for your personal safety.
❷ Never perform any task unless you have been trained and authorized.
❸ Always follow job procedures and company rules.
2. they were not trained or authorized to perform the task
3. b and c
4. c
5. a
6. a
7. d
8. b
9. because they advise us about actions we should take in regard to our safety