

## **HIGH-IMPACT WORKPLACE SAFETY**

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**

We all come to work each day with plans and goals of what we want to accomplish. We may even have a list of these things, or a "to do" list, so to speak. While no one's list includes being killed or injured at work, all too often this is what happens when workplace safety is not at the top of our list of things to do each day. Staying safe on the job doesn't just happen, it takes effort and commitment from each of us.

In this program, we will review the causes of several workplace deaths and injuries and what we must do to prevent similar incidents from happening to us. Featured are several workplace injury scenarios that show both the consequences of unsafe acts and how the job could have been done the "right way" to prevent the injuries.

Training topics include Personal Protective Equipment (PPE), employee training and authorization, following safe work practice completely, the dangers of shortcuts, lockout/tagout, workplace signs and hazard communication.

### ***PROGRAM OUTLINE***

#### **PERSONAL PROTECTIVE EQUIPMENT**

- Personal Protective Equipment, sometimes called PPE, is often our only protection against certain hazards.
- The company has evaluated the hazards presented by various work areas and has specified protective equipment in these areas. The company provides this equipment at no charge to employees.
- Leather boots and shoes are required in most work areas. They protect feet from cuts and abrasions. In areas where feet are at risk from heavy falling objects, reinforced steel toes or metatarsal guards are required.
- Hardhats are required in areas where objects may fall from above or where we may strike our heads on low-hanging objects.
- Hearing protection is required in areas with excessive specific noise levels. Hearing protection is required because loud noise damages our hearing; this damage accumulates over time and leads to hearing loss.
- Safety glasses protect our eyes from debris and are required in all areas where the potential for these hazards exist. Choosing not to wear required protective equipment in these work areas is a serious lapse of safety.

- Safety goggles provide more protection than safety glasses because they provide a seal of protection completely around the eyes. Goggles are required when working with liquids that may splash into the eyes or when performing tasks where dirt or debris might work their way under the frame of regular safety glasses.
- Jobs such as chipping or grinding, which generate flying debris, require complete facial protection in the form of a face shield. When wearing a face shield, eye protection is still required; never wear a face shield without also wearing safety glasses or goggles.
- Other types of protective equipment you may be required to use include respirators, chemical-resistant clothing or other specialized equipment.

### **JOB TASKS THAT REQUIRE TRAINING AND AUTHORIZATION**

- Many tools, machines and pieces of equipment located throughout the facility require training and authorization before use.
- For example, overhead cranes, which appear simple to use, can be quite dangerous when used improperly. Do not use overhead cranes unless you are trained and authorized.
- Forklifts are powerful machines that have very unique steering, braking and turning characteristics. Trying to drive a forklift without proper training leads to many mishaps each. Do not operate forklift unless you are trained and authorized.
- Welding and cutting equipment generates a lot of heat and sparks, require a large electric current and require specific training to use safely. Do not operate welding or cutting equipment unless you have been trained and authorized.
- A good rule of thumb is, if you are unsure if you are trained and authorized to operate a specific piece of equipment, you're not! So don't operate it.
- Taking the time to find a qualified operator may take a little longer, but getting a quality job done in a safe manner is always worth the wait.
- Of course, training and authorization alone will not protect you from injury, only the strict adherence to the safety rules and procedures learned during your training will do that.

### **LOCKOUT/TAGOUT**

- Before performing any lockout/tagout operation, all affected employees must be informed that a lockout is in progress and the reason the machine is being removed from service.
- Correct lockout procedures require the use of a company approved tag and locking device. When locking out equipment, you must use an approved lock and maintain possession of the key.
- The tag must be secured with non-reusable ties and be able to withstand 50 pounds of force. This ensures no one can apply power to the equipment while it is being serviced.
- After performing a lockout, always test its effectiveness by attempting to operate the equipment from its control station.
- Make sure to lockout all other sources of energy besides electrical: pneumatic, hydraulic, gravity, etc.

### **JOB TASKS THAT REQUIRE SPECIFIC PROCEDURES**

- Performing lockout/tagout operations is just one example of job tasks that require specific procedures to be followed to avoid injury.

- Another example is confined space entry, which requires written permits, air monitoring, rescue services and other safety practices.
- Another is using universal precautions to protect ourselves from bloodborne pathogens. This includes avoiding contact when possible, using protective equipment as a barrier, using biohazard containers for disposal and decontaminating affected work areas.
- The point is that the company has many different safety rules and procedures designed to protect us from harm, but they only provide protection when they are followed.

### **WORKPLACE SIGNS**

- Safety rules, procedures and instructions are given to employees in many different ways. One means of communicating safety instructions is through the use of signs.
- These signs provide instruction on required PPE, point out when caution should be used to avoid injury and act as a last line of defense between us and life-threatening dangers.
- These signs provide important information that must not be ignored.

### **HAZARD COMMUNICATION**

- Another source of safety information is provided on chemical labels and MSDS sheets. These items contain safety instructions and information necessary to work safely with a chemical.
- Using a chemical without reading the label means you have no idea if it is hazardous to your health. It may be dangerous to breathe, smell or touch and you have no idea if you need gloves, a respirator or extra ventilation.
- Material Safety Data Sheets provide more information, such as hazardous ingredients, first aid procedures, firefighting information, protective equipment and anything else you need to know about the chemical.
- The company maintains Material Safety Data Sheets on every chemical in the plant; if you're unsure about something, look it up or ask your supervisor.
- Never use chemicals without understanding their hazards and how to protect yourself from them.

### **DANGERS OF SHORTCUTS**

- Taking chances and shortcuts to save time is just not worth it. We must constantly be on guard to avoid these types of unsafe acts, because the temptation to take shortcuts comes in many forms.
- Using chairs, boxes or other devices to reach objects rather than proper ladders or stepstools; reaching around machine guards rather than performing a lockout; defeating guarding to make a job easier; or, running at work or cutting through work areas are all examples of shortcuts.
- Sometimes we don't always see the danger in taking these types of chances because our view may be distorted by haste, anger or stress.
- During these moments when we are tempted to make a poor decision, a simple reminder by a co-worker could make all the difference. Speak up if you see someone doing something unsafe; bruised egos heal much faster than broken bones.

## **INCIDENTS AND THEIR SAFETY LESSONS**

### **Incident 1: Employee Suffers Traumatic Eye Injury After Neglecting PPE And Performing Task Without Training And Authorization**

Plant employee John Hendrix needed a hole drilled in a metal plate for one of his work projects. As he entered the maintenance shop to find someone to drill the hole, he realized that he had left his safety glasses on his desk. Since he was only going to be in the shop a few minutes, he didn't go back for the glasses. He also couldn't find anyone to do the job for him, so he proceeded to do it himself. Being unfamiliar with the drill, he attempted to drill the hole with the bit turning in reverse. Because he was making no progress with the hole, he decided applying more pressure would get the hole started. He pulled the drill down and the excess pressure caused the bit to brake, striking him in his unprotected eye.

#### **Safety Lessons:**

- *Always wear the proper protective equipment for the hazards of the work area you are in or the job you are performing.*
- *Never perform any task that you are not trained or authorized to do.*
- *Don't allow haste to cause you to make poor safety decisions (such as neglecting personal protective equipment or operating tools without training and authorization).*

### **Incident 2: Series Of Lockout Mistakes Leads To Worker's Death In Conveyor System**

Mike Johnson, a plant maintenance technician, turned off the power to the conveyor he was servicing and taped a lockout tag to the disconnect. As Joey, Mike's co-worker, returned from the tool room, he noticed the conveyor wasn't moving and thought another co-worker had stopped it inadvertently. Joey didn't see the tag that Mike had taped to the disconnect because it had fallen off and Mike didn't say anything about servicing the unit, so he turned the switch back on. When Mike returned to the conveyor, he assumed the power was off and reached under the conveyor to check the roller. A computer in the control room issued a command for the conveyor to start. Mike managed to grab onto the framework of the sweeper arm to keep from going over the top of the conveyor, but because his body had broken the light beam of the excess waste sensor the sweeper arm was activated. Mike was swept into the hopper and crushed.

#### **Safety Lessons:**

- *Before performing any lockout/tagout operation, inform all employees affected by the procedures that a lockout is in progress and why the machine is being removed from service.*
- *Always use an approved lock and tagging device when locking out a machine. Make sure to secure the tag with a non-reusable tie and that it can withstand 50 pounds of force.*
- *Before proceeding with your work, always test the effectiveness of your lockout by attempting to operate the equipment from its control panel.*
- *Be aware that all sources of energy must be isolated from the equipment before maintenance can proceed (In this case, he failed to bleed off the pneumatic pressure to the conveyor's sweeper arm and lock it out).*
- *Always consult the company's written lockout procedure if you have any questions about lockout/tagout operations.*

### **Incident 3: Severe Chemical Burns Result From Custodian's Failure To Read Container Label**

Custodian Steve Lewis had been asked by his supervisor to clean the shower stalls in the operations locker room before the end of his shift. Although he was unsure which cleaner to use, he picked up a bottle of mildew cleaner and proceeded to wipe down the shower walls. Unaware that the mildew remover needed to be diluted with 16 parts of water, he noticed that his hands and forearms began to burn but he figured he could rinse them off then the job was complete. When the pain became unbearable, he ran to a sink to rinse them off but the damage to his skin had already been done.

#### **Safety Lessons:**

- *If you are unsure how to do a job safely, do not hesitate to ask for help.*
- *Always read the container label before using any chemical. In this case it would have provided the handling requirements (diluting 16 to 1 with water) and required personal protection (rubber chemical gloves and goggles).*

- *Never use chemicals without understanding their hazards and how to protect yourself from them.*

#### **Incident 4: Office Employee Crushed By Forklift After Taking Shortcut While Working In Warehouse**

Ruth and Wanda were two office workers who were assigned to take inventory in the warehouse. Before they started work, the warehouse supervisor told them what PPE was required for the job and to also be aware of forklifts in the area. Ruth and Wanda didn't know how the product bins were numbered, so they had to look up the bin location on the computer whenever they started counting a new product. On the final day of the project they needed to find one last bin location. Wanda saw a forklift on the next aisle and figured it would be faster to ask the operator where the parts were rather than walking back to the computer. Ruth knew Wanda shouldn't do this, but said nothing because she didn't "want her to get mad" at her. When Wanda ducked under a storage rack and tried to get the attention of the forklift operator from behind, the forklift made a sharp turn as it backed up and crushed her.

#### **Safety Lessons:**

- *Pedestrians should always stay well clear of forklifts.*
- *Taking chances and shortcuts to save time is just not worth the risk.*
- *Always understand and control the hazards of your work area.*
- *Speak up if you see someone committing an unsafe act! Bruised egos heal much faster than broken bones.*

## **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 show viewers basic safe work practices while stressing that staying safe on the job doesn't just happen, it takes effort and commitment from each of us.

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

Lead discussions about specific job tasks at your facility in which unsafe acts could result in injuries and the proper procedures that must be followed to prevent these injuries. Use the review questions to check how well the participants understood the information.

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

- The causes of the injuries in the video and the actions that could have been taken to prevent them;
- The importance of being trained and authorized for every task an employee undertakes;
- Safe work practices for lockout/tagout operations and handling chemicals;
- The significance of workplace signs and always following their messages;
- Why taking risks and shortcuts to save time aren't worth the trouble.

**HIGH-IMPACT WORKPLACE SAFETY  
REVIEW QUESTIONS**

Name \_\_\_\_\_ Date \_\_\_\_\_

*The following questions are provided to check how well you understand the information presented during this program.*

1. You should never wear a face shield without also wearing safety glasses or goggles.
  - a. true
  - b. false
  
2. Tags used in lockout situations must be able to withstand \_\_\_\_\_ pounds of force.
  - a. 5
  - b. 10
  - c. 25
  - d. 50
  
3. Which of the following was **not** a mistake made by the employee who was struck in the eye by the broken drill bit?
  - a. he wasn't wearing the proper PPE
  - b. he was operating the drill in reverse
  - c. he was wearing safety glasses instead of goggles
  - d. he wasn't trained or authorized to operate the drill
  
4. If you are unsure whether you are trained and authorized to perform a task, you should consult the training manual for the task and then do the work.
  - a. true
  - b. false
  
5. Which of the following resulted the incident in which the maintenance technician was killed why servicing the conveyor system?
  - a. he failed to inform his co-worker of his actions
  - b. he tagged the disconnect to the conveyor improperly
  - c. he failed to isolate the power to the system's sweeper arm
  - d. all of the above
  - e. none of the above
  
6. Which of the following did **not** contribute to the burns the custodian received while cleaning the shower stalls in the operations locker room?
  - a. he didn't read the label on the cleaner
  - b. he used the wrong chemical to clean the stalls
  - c. he was unsure which chemical to use and failed to ask for help
  - d. he didn't dilute the cleaner with water
  
7. The company maintains a Material Safety Data Sheet for every chemical used in the plant.
  - a. true
  - b. false
  
8. If you see someone committing an unsafe act, you should say nothing to your co-worker and then report it to your supervisor
  - a. true
  - b. false

***ANSWERS TO THE REVIEW QUESTIONS***

1. a
2. d
3. c
4. b
5. d
6. b
7. a
8. b