HIGH-IMPACT HAND 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 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

Hands help us provide for our basic necessities as well as help us enjoy the fruits of our labors. Despite numerous training programs on the subject of hand and finger safety, the National Safety Council reports that one out of every four on-the-job accidents involve hands, fingers, wrists and arms. Although the majority of the injuries occur among people who work with equipment and machinery, hand and finger accidents can and do occur anywhere that hands are involved with work.

This program dramatically re-creates 15 work-related accidents involving hands and fingers. Not only will the viewer be able to recall the accident, but he will also be able to recall the causes and the applicable prevention methods mentioned in the video. The accident re-creations will motivate employees to understand hazards, wear appropriate hand protection and follow safe work practices.

PROGRAM OUTLINE

BACKGROUND

- Hand injuries result from smashing steel, grinding wheels, saw blades, extreme temperatures, molten metal, sharp knives, pinch points, chemicals and repetitive motion stress.

- Classes of hazards:
  Physical (heat, cold, mechanical, ergonomic)
  Biological (bacteria, viruses, molds)
  Chemical (irritants, sensitizers, corrosives, etc)

- Protect hands from hazards by understanding and practicing safe work procedures and knowing when to wear and how to select appropriate hand protection.

ACCIDENTS AND THEIR LESSONS

ACCIDENT 1
METAL WORKER INJURES HAND

- While assisting in bending metal plates into an arc, John Growler ignored instructions to keep the floor clear around the metal bending machine before operating it. Attempting to clear the area after the machine was running, he tripped over his own tools and fell into the machine rollers.

LESSON: ***Follow good housekeeping practices by removing tripping hazards that can result in injury.***

ACCIDENT 2

HAND WOUND BECOMES INFECTED

• While changing the coolant in a drill press, Earl Osterman scratched the back of his hand. Not only did he delay getting medical attention, he allowed bacteria-contaminated coolant to flow over the wound, resulting in a serious infection.

LESSON: ***Learn the potential hazards of materials you work with such as coolant and select the appropriate gloves for protection. Also learn the limitations of the gloves you select so that they don't deteriorate during the work you perform. Always seek medical attention immediately after an accident.***

ACCIDENT 3

MEAT CUTTER LOSES CONTROL OF HAND MUSCLES.

• Monique Salvarz failed to select a glove with adequate insulation to prevent cold exposure to her hands. After several hours of cutting on the line, she lost control of her hand muscles and injured her hand.

LESSON: ***Select gloves to prevent exposures to hazards. Insulating layers can be used under an outer glove to protect from the cold. Also, keep your hand in-line with the wrist to relieve discomfort associated with repetitive motion stress.***

ACCIDENT 4

POWER CORD SHORTS OUT ON WATCH BAND

• Robert Ferris, maintenance repairman, received an electrical burn when the frayed electrical cord on his drill shorted out on his metal watch band. Ferris sustained minor burns to his wrist and hand.

LESSON: ***Don't wear jewelry when working with power tools or equipment. Don't use power tools with a frayed electrical cord or other defects.***

ACCIDENT 5

GLOVE CAUGHT IN CONVEYOR BELT

• While clearing out an overfilled catch bin on a piston ring cleaning machine, Frank Batavius's gloved hand got caught in the conveyor after he quit using the prescribed tool to clear the bin. His finger was severely injured.

LESSON: ***Follow safe work practices all of the time. Use prescribed tools not hands; don't work too closely to moving machinery.***

ACCIDENT 6

MACHINE OPERATOR PULLED INTO ROTATING EQUIPMENT

• Clarence Hall attempted to clean the working surfaces below his drill press with his gloved hand. While working his loose-fitting, long-sleeved shirt caught in the drill and pulled his arm and face into the equipment. He suffered severe lacerations to his face and his arm was pulled out of socket.

LESSON: ***Do not wear loose-fitting clothing around machine actions.***

ACCIDENT 7

MACHINE OPERATOR'S ARM SEVERED

• Jose Montoya removed the guard on a continuously running steel rolling press. When he reached into the machine to check the rollers, his gloved hand was pulled into the pinch point between the steel feed stock and the rollers. His entire arm was severed by the action.

LESSON: ***Don't attempt to reach into rotating machinery with your hands. Don't defeat machine guards; machines must be locked out before servicing.***

ACCIDENT 8

CLEARING PAPER TRIM WITH HAND RESULTS IN INJURY

• Christina Wando, a slitter operator, cleared trim from the paper roll ends with her hands rather than using the approved wooden wedge. She received a severe hand injury when she ignored the safe work practice.

LESSON: ***Understand and remember why assist devices, guards, interlocks and electric eyes are necessary on the equipment you use.***

ACCIDENT 9

BLENDER APUTATES OPERATOR'S ARM

• To complete his routine cleaning task faster, Charles Badesden defeated the safety interlocks on the sausage blender door so he could reach into the running machine. The blender amputated Badesden's right arm.

LESSON: ***Defying company safety rules has far-reaching consequences. Such defiance not only results in a safety violation but often in tragic personal loss.***

ACCIDENT 10

WELDER LOSES FINGERS

• Roy Anderson, a welder, lost his concentration while helping to position a tank top in preparation for welding. He didn't remove his hand from the tank edge where it was crushed by the tank top.

LESSON: ***Stay alert and focused on the job task to prevent carelessness and tragedy.***

ACCIDENT 11

SAW BLADE SEVERS FINGER

• After changing the blade on his band saw, Phagen Beadenbaugh unconsciously place his hand into the rotating blade while reaching with his other hand for a piece of lumber. He severed his fingers above the second joint.

LESSON: ***Stay alert and focused on the job task to prevent carelessness. Do not work when fatigued or under the influence of drugs and alcohol.***

ACCIDENT 12

EMPLOYEE'S HAND IS CRUSHED

• Reporting for work while still under the effects of alcohol, Jan Nolten violated company policy on the use of pallets as manlifts. He placed his hand on the forklift mast to steady himself as it was lowered. He had just finished servicing a vent while standing on the pallet inserted on the forks. Nolten didn't realize where his hand was until it was crushed by the moving parts on the forklift mast.

LESSON: ***Working under the influence of alcohol decreases our awareness of safe work rules. Reporting to work impaired is always a violation of company rules.***

ACCIDENT 13

MATERIALS HANDLER LOSES FINGER

• Materials handler Rick Fairmore climbed a storage shelf to retrieve a roll of material. After throwing the material to the floor, he held onto the edge of the shelf and jumped to the floor. His wedding ring got caught on a shelf fastener. While he landed on the floor, his finger and ring were still on the shelf.

LESSON: ***Always obey company safety practices. Use a ladder for climbing and don't wear jewelry in work areas where it is prohibited.***

ACCIDENT 14

WRONG TOOL PUNTURES HAND

• Wally Burlson, a maintenance worker, attempted to pry a ring from a universal joint with an awl. When the awl slipped, Burlson realized quickly that he had selected the wrong tool as the awl punctured his hand.

LESSON: ***Thousands of injuries occur because the wrong tool is selected. Match the tool with the job.***

ACCIDENT 15

PAPER MILL WORKER SLICES HAND

• Using improper cutting procedures to obtain paper samples from a paper roll, Charlene Thompson sliced her hand and chest.

LESSON: ***Always direct the cutting action of knives and other cutting tools away from your body.***

SUMMARY

- Select the right glove for the job when gloves are required.
- Keep hands and gloves clean; maintain and store gloves properly.
- Ensure all machine guards are in place and don't defeat any safety devices.
- Follow your company's lockout/tagout procedures before repairing or maintaining equipment.
- Use assist devices for clearing scraps or jams from running equipment.
- Never wear rings, jewelry or loose clothing when working with or around moving machinery.
- Always follow company job procedures and safety rules.
- Stay alert and concentrate on your work task.
- Match hand tools to the job and use them properly.

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 understand safety rules that will help in avoiding hand and finger injuries.

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 or job tasks that may cause hand injuries at your facility. 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:

- Hazards can cause the majority of hand and finger injuries;
- Safe procedures and attitudes for preventing hand and finger injuries;
- The role of gloves and jewelry in hand and finger safety.

HIGH IMPACT HAND SAFETY
REVIEW QUESTIONS

Name_____Date_____

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

1. Name two types of hand and finger hazards discussed in the video.

2. The lack of good housekeeping in a work area can result in a hand injury when _____.
a. tripping over obstacles on the floor in the work area can cause you to fall into a running machine
b. wiping your hand with a rag soiled with toxic chemicals
c. picking up broken glass with your bare hands.
d. forgetting to wear gloves to clear out a catch bin

3. The reason the drill press operator's hand became infected was _____.
a. he did not know bacteria was in the coolant
b. he did not seek medical immediately for the wound
c. he did not understand the hazards of his job
d. all answers are correct

4. When working around running machinery, jewelry such as wedding bands _____.
a. should not be worn because it may be damaged
b. should not be worn because it can get caught on moving parts
c. can be worn if you know that it won't get caught in the machinery
d. may be removed or left on depending on each person's discretion

5. Defeating interlocks and machine guards _____.
a. is commonly done and is not always considered a safety violation
b. is not a serious offense unless you get caught
c. is an invitation to lose a hand, arm or worse
d. is not possible

6. Attempting to work under the influence of drugs or alcohol_____.
a. will reduce your ability to stay alert
b. will not affect anything that goes on at work
c. could result in an arrest by law enforcement officials
d. will likely result in the loss of your job.

7. The safety procedure that most often protects workers' hands while adjusting equipment is _____.
a. proper lockout/tagout
b. turning off the machine
c. using proper PPE
d. using the buddy system

8. You notice that the gloves you wear to prevent exposure to solvent have developed a slow leak. You should_____.
a. quickly put on another pair of gloves over the ones you are wearing
b. wait for a shift change to put on another pair
c. remove the old gloves, clean your hands thoroughly and put on new gloves
d. none of the above

ANSWERS TO THE REVIEW QUESTIONS

1. chemical, biological and physical (including mechanical, heat, cold and ergonomic)
2. a
3. d
4. b
5. c
6. a
7. a
8. c