



Training Solutions, Delivered!

# **MAINTAINING YOUR SAFETY**

## **Non-Graphic (*Concise*)**

### **Leader's Guide, Fact Sheet & Quiz**

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

## **PREPARING FOR THE MEETING**

Here are a few suggestions for using this program:

- a) Review the contents of the Fact Sheet that immediately follows this page to familiarize yourself with the program topic and the training points discussed in the program. The Fact Sheet also includes a list of Program Objectives that details the information that participants should learn from watching the program.
- b) If required by your organization, make an attendance record to be signed by each participant to document the training to be conducted.
- c) Prepare the area and equipment to be used for the training. Make sure the watching environment is comfortable and free from outside distractions. Also, ensure that participants can see and hear the TV screen or computer monitor without obstructions.
- d) Make copies of the Review Quiz included at the end of this Leader's Guide to be completed by participants at the conclusion of the presentation. Be aware that the page containing the answers to the quiz comes before the quiz itself, which is on the final page.

## **CONDUCTING THE PRESENTATION**

- a) Begin the meeting by welcoming the participants. Introduce yourself and give each person an opportunity to become acquainted if there are new people joining the training session.
- b) Introduce the program by its title and explain to participants what they are expected to learn as stated in the Program Objectives of the Fact Sheet.
- c) Play the program without interruption. Upon completion, lead discussions about your organization's specific policies regarding the subject matter. Make sure to note any unique hazards associated with the program's topic that participants may encounter while performing their job duties at your facility.
- d) Hand out copies of the review quiz to all of the participants and make sure each one completes it before concluding the training session.

## **3983 MAINTAINING YOUR SAFETY Non-Graphic (Concise) FACT SHEET**

**LENGTH: 10 MINUTES**

### **PROGRAM SYNOPSIS:**

Maintenance workers maintain all aspects of operations and equipment. They are such an important part of the process that they feel pressure to get all repairs done fast! In this program, maintenance workers learn how to overcome pressure and redouble their efforts to always follow safe work procedures. Also featured are reenactments of common maintenance incidents, testimonials and examples of safe work practices. In addition to developing and maintaining a good safety attitude, other topics include: job hazard analysis, lockout/tagout, ladder safety, elevated work platforms, fall protection, use of hand and power tools, electrical safety and arc flash protection.

### **PROGRAM OBJECTIVES:**

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

- Why maintenance workers must overcome pressure to skip safety procedures;
- Why all lockout/tagout procedures must be followed to control a system's energy sources;
- What precautions employees must take to prevent falls when performing jobs above ground;
- Why we must always choose the proper tools for the job and use them safely.

### **INSTRUCTIONAL CONTENT:**

#### **SAFETY MUST BE MAINTENANCE WORKER'S FIRST PRIORITY**

- No matter where we happen to work or what products we make, it takes a variety of systems and processes, tools and equipment, machines and instruments, and of course, personnel to put it all together and make it happen. In addition to making products, keeping ourselves and our co-workers safe each day is our top priority.
- When everything is up and running properly, staying safe is easy: stay inside marked walkways, observe and follow instructions on safety signs, don't reach into machinery or remove guarding and stay on the safe side of guardrails.
- We all know things don't always go as planned, and when our processes and equipment need service or repair, there is a group of workers who must leave the sanctuary of marked aisle ways and guardrails in order to perform the critical work needed to keep our facility up and running.
- These are the maintenance workers, and their work is critical to our operation. Due to the nature of their work, maintenance workers have the potential to be exposed to hazards from which other workers are protected.
- While their work maintaining our equipment and processes is important, maintaining their own safety must be the first priority of every maintenance worker.

#### **OVERCOMING PRESSURE TO SKIP SAFETY PROCEDURES**

- A crane operator attempting to move a pipe for shipment says to his supervisor, "See, I told you. The crane hook won't lower down, so I can't get this pipe moved up the line."
- "That's the last piece of an order that has to truck out today. There's a late penalty built into the contract, plus more costs if the trucker can't get going," his supervisor responds. "Can't you do something?"
- The operator replies, "I called maintenance. I don't know what else to do. They'll take care of it."
- "I called maintenance. They'll take care of it." A lot of hope, expectation and trust are built into those words. One of the biggest hazards a maintenance worker faces occurs before he ever starts a job: the expectations and pressures placed on him by affected workers, supervisors and even other maintenance workers.
- After the crane operator and supervisor tell the maintenance worker they are counting on him, he says, "I'll get it fixed as quick as I can, but first I need to get the crane rail and conveyor locked out before I can get up there with the boom lift."
- "How long will that take?" interrupts the supervisor. "How about I stand guard over the E-stop on the pipe cradle line and Mickey holds up the other crane operators by radio?"
- In an interview, one maintenance employee says, "In maintenance, you just have to follow the procedure every time, no matter what."

- A second worker concludes, “There’s always pressure coming from somewhere to ‘get it fixed fast.’ When cooler heads prevail, everyone agrees that it doesn’t make sense to risk a life to fix a piece of machinery, but until that happens, it’s up to you, the maintenance worker, to be the one with a cool head because it’s your life on the line if you don’t.”
- “Sorry guys, but your crisis is not worth my life,” replies the maintenance worker to the supervisor. “That’s why we have maintenance procedures in the first place. I’ll keep you posted.”
- That’s good advice, because failing to follow safe work procedures, no matter what the reason, injures and kills many maintenance workers each year.

## **LOCKOUT/TAGOUT**

- Following lockout/tagout procedures is the heart and soul of safe maintenance operations.
- Every system, machine, tank, pipe, motor or piece of equipment can hurt you if the energy sources connected to it are released while you are nearby or in the line of fire.
- Controlling hazards by locking and tagging a system’s energy sources is a simple, yet critical concept, but one not fully appreciated by Jason Montigue as he was adjusting and greasing the chain drives on the mixer line.
- “Before he started, Jason asked me if the motor was off. He couldn’t see the controls from where he was. I said it was because I had just pressed the stop button then left the area,” a co-worker says.
- Jason removed the guarding and began the process of greasing and tightening the chains. Unbeknownst to Jason, another worker was passing by the control station and questioned why the line was not running.
- In the split second it took for that worker to push the start button, Jason’s fate and his future as a double amputee was sealed as his arms were pulled into the chains and gears of the moving machine.
- That’s why lockout/tagout procedures must be followed; they contain specific steps to prevent this type of needless tragedy.

## **FALL ARREST EQUIPMENT**

- An important part of a maintenance worker’s commitment to safety includes the use of fall arrest equipment.
- Just like seat belts in your car or truck, fall restraint systems can save your life, but they do no good when left unconnected. As Larry Fitzgerald found out, no matter how many times you have done a certain task without incident, it only takes once to become a statistic.
- Larry’s co-worker turned away without speaking up and Larry started his usual and familiar routine of inspecting the elevated tank. It’s when maintenance tasks become usual and familiar that unexpected incidents occur.
- The investigation revealed that Larry tripped over his own tools, causing him to fall to his death.
- As a maintenance worker, Larry had been trained many times in the use of fall restraint systems. It wasn’t a lack of knowledge that killed him; Larry’s fatal mistake was a lapse in his personal commitment to safety.
- It serves to underscore the fact that it takes more than safety training to stay safe; it takes a safety commitment.

## **ELEVATED WORK PLATFORMS**

- Martin Parker was known as a problem-solver. He had lots of skill and experience doing a large variety of jobs and seemed to always know a way to get a hard job done quickly.
- “Martin kind of took over the job once he showed up. We were about 15 feet up and needed to bust loose an old pipe from its clamps, and the nuts were stripped off,” says one of his co-workers. “Most of us wanted to go get a grinder and cut the nuts off. Martin insisted on taking a big pry bar up there and kind of try to force it loose. He kind of got his back up about it saying we just didn’t know how to get things done.”
- “You guys just don’t know how to get a job done,” Martin said to the workers standing around the lift. “Sometimes, you just got to go with what you got handy and make it work. I’ll take care of it.”
- Once Martin “got his back up” about how he wanted to fix the problem, he was letting his emotions control his actions rather than following his training—a very dangerous situation for any worker, especially a maintenance worker.
- A scissor lift, when fully elevated, is only designed to support its rated load vertically, straight up and down. It is not designed for side-loading, and when Martin put all his effort into the pry bar, it didn’t take much force to turn the lift over, killing him.
- “We all received the same training on the lifts, but I guess Martin forgot about not side-loading,” says Martin’s co-worker.

- Martin was trained and authorized for the lift he was in; he knew not to side load the lift. More likely, what he forgot was not to let his emotions impact his safety, an all too common mistake.

#### **HAND & POWER TOOL SAFETY**

- We have all heard the oft-repeated mantra of “use the right tool for the job,” so why do we still skin our knuckles when pliers slip on a nut when a wrench was the proper choice?
- Like any other safety decision, we just decide to select the correct tool and use it properly. It’s an easy choice when the correct tool is handy, but it takes extra effort when it involves a return trip to the tool room.
- Maintaining your safety means making time to gather the proper tools rather than risking injury by making do with what you have handy.

#### **CONCLUSION**

- As maintenance workers, we follow procedures and have a work plan, but despite our best efforts, things don’t always go as expected. This is why taking steps to maintain our safety is so important.
- Perform a job hazard analysis to identify hazards.
- Follow lockout/tagout procedures as well as other safe work practices to control hazards.
- Use fall protection, arc-rated clothing and other personal protective equipment to protect against the unexpected.
- In this program, we have discussed just a few ways maintenance workers can stay safe while working. The list of potential hazards to which maintenance workers are exposed is endless, and no program can discuss them all.
- This is why your attitude and commitment to safe work practices is so important. A good safety attitude helps resist the pressures placed on maintenance workers to “get it fixed fast” and allows you to perform a hazard analysis and follow safe work procedures on every job you perform.
- Always remember, maintaining your safety is the most important maintenance job you have.

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**ANSWERS TO THE REVIEW QUIZ**

1. b

2. a

3. d

4. a

5. b

6. c

7. b

8. b

9. a

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**REVIEW QUIZ**

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

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

1. The first priority of every maintenance worker should be \_\_\_\_\_.
  - a. Completing repairs as quickly as possible
  - b. Maintaining their own safety
  - c. A good attitude under pressure
  
2. One of the biggest hazards a maintenance worker faces is the expectations and pressures placed on him by affected workers, supervisors and even other maintenance workers.
  - a. True
  - b. False
  
3. In the face of pressure to get broken equipment fixed, maintenance workers must \_\_\_\_\_.
  - a. Keep a cool head
  - b. Resist the urge to take short cuts
  - c. Realize that their life is on the line if safety procedures aren't followed
  - d. All of the above
  
4. Every system, machine or piece of equipment has the potential to hurt you if the energy sources connected to it are released while you work on it or stand nearby. \_\_\_\_\_ procedures control the dangerous parts of a machine while you work on it.
  - a. Lockout/tagout
  - b. Emergency stop
  - c. Lock-in/tagout
  - d. Emergency energy
  
5. Before starting any job, you should identify and \_\_\_\_\_ all sources of energy connected to the equipment.
  - a. Log
  - b. Control
  - c. Confirm
  - d. All of the above
  
6. Mobile lifts, like all other equipment, require training and authorization prior to use. In the video, Martin was trained and authorized for the lift he was in. Why did Martin ignore his training and side load the lift?
  - a. His supervisor asked him to
  - b. It was late and he was ready to go home
  - c. He let his emotions affect his safety judgment
  
7. In the video, Larry fell to his death because he was not wearing a fall restraint system. What best describes the reason he chose not to wear it?
  - a. He was not trained
  - b. A lapse in his personal commitment to safety
  - c. His equipment was being repaired
  - d. None of the above
  
8. Safety training alone will ensure that you stay safe on the job.
  - a. True
  - b. False
  
9. Your attitude and commitment to safe work practices is the most important factor in staying safe on the job.
  - a. True
  - b. False