

JOB SAFETY ANALYSIS, SAFETY AWARENESS AND YOU

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.

INTRODUCTION

While there are countless methods used to protect workers from injury, each method shares a common root. The genesis of all injury prevention methods is an understanding and awareness of the hazards to which a worker may be exposed. In other words, the company and the worker must be aware of a hazard before that hazard can be controlled. This program discusses the important roles played by both management and employees in recognizing and controlling workplace hazards and how this shared duty of safety awareness and hazard recognition helps prevent injury.

Detailed in the video is the process of developing a successful job safety analysis, including the sequence of dividing a job into steps, analyzing those steps for hazards and creating control measures for each step. In addition to safety awareness and hazard recognition, the concept of situational awareness is explained and what corrective actions we can take when we notice signs and symptoms of loss of awareness.

PROGRAM OUTLINE

JOB SAFETY ANALYSIS

- Jerry is an employee who has been assigned to place some chemical drums onto drum pallets. Being unfamiliar with how to handle heavy drums, he loses control of one of them and it falls onto his foot and leg, causing an injury.
- There were a variety of mistakes that led to Jerry's injury. The first mistake, the one that could have prevented all the others, was a failure to perform a JSA; a job safety analysis.

What Is A JSA?

- A job safety analysis is a process which identifies the hazards of a specific job so measures to eliminate or control those hazards can be determined and implemented.
- The ultimate goal of a job safety analysis is to reduce the risks or hazards of a task, process or procedure to as low as reasonably practical to protect workers from injury or illness.
- Of course for a JSA to be helpful, it must be done prior to the job being performed and its findings must be implemented into engineering controls, safe work practices and procedures.

When Should A JSA Be Performed?

- As Jerry found out the hard way, discovering a job's hazards by trial and error can be a painful process.

- This is why a job safety analysis should be performed anytime a new job task is introduced into the workplace as well as anytime a current job task is changed or modified.
- Each JSA should also be periodically reviewed to ensure it remains accurate and effective.

Information On A JSA

- A successful job safety analysis will produce a document that is easy to understand, can be reviewed with employees during orientation or safety meetings and can be included in a worker's job description.
- A finished JSA will typically contain the following important information: a description of the job task to be performed, a listing of the basic steps required to complete the job, a listing of the potential hazards which may be encountered during each step and a list of measures to be taken during each step to control those hazards.
- Employees must be mindful that the existence of a job safety analysis alone will not make a job safe. Injuries will still occur if the JSA is not fully implemented by both management and workers.
- The job safety analysis for most new job tasks are typically conducted by management and safety professionals; however workers are often part of the assessment team.
- In addition, workers may discover a job task that doesn't currently have a written job safety analysis and be asked to perform one on their own.
- Safety committee members, frontline supervisors and experienced workers may also frequently be asked to review existing JSA's and offer suggested changes.
- No matter who conducts a job safety analysis, it is important to participate if you are asked to do so. You may have unique or specific knowledge about the hazards involved. Involvement by knowledgeable workers helps ensure a top-quality analysis.
- Your participation will also indicate to others that you are committed to the safety effort of the organization. Your example makes it more likely that others will also participate.

Good Starting Information

- When conducting a JSA, a good starting point is to review any incidents related to the task in question which have resulted in injuries, property damage or close calls.
- This information may indicate that existing controls, if any, aren't sufficient and may provide clues to new control measures which may need to be implemented.
- You should then consult with experienced employees to learn about the hazards they have noticed and to get their ideas on eliminating and controlling those hazards.
- Of course, if any hazard is identified that poses an immediate danger to a workers life or health, take immediate action to prevent an injury. Do not wait until the job safety analysis is completed before correcting obvious hazards.

Prioritize Jobs To Review

- To help decide which jobs to analysis first, make a list and rank them by priority. List jobs with hazards that present unacceptable risks and rank them based on those most likely to occur and those with the most severe consequences. These are the tasks which should be your first priority for analysis.

JSA: DIVIDE THE JOB INTO STEPS

- Next, divide the job into its basic steps. One way to do this is to observe a worker performing the job and making a list of the steps taken by the worker.

- Some organizations record video of workers performing the job so it can be more carefully analyzed to produce a more detailed job safety analysis.
- Once created, the list of job steps should then be reviewed with the worker to make sure nothing has been omitted.
- It is often a good idea to limit the job steps of a JSA to 15 or less. Jobs requiring more than 15 steps can usually be broken down into more than one JSA.

JSA: ANALYZE STEPS FOR HAZARDS

- Once a listing of job steps is created, each step should be analyzed for hazards by attempting to envision the various ways a person performing that particular step may suffer an injury.
- Here are a few common categories of the causes of injuries. Consider each of these when analyzing each job step for potential hazards.
- Struck: Can the worker strike anything that may cause injury such as sharp edges or low hanging objects? Can anything strike the worker such as falling objects, opening doors or moving vehicles?
- Contact: Can the worker contact anything that may cause injury such as hot objects, energized electrical parts or hazardous chemicals? Can anything harmful contact the worker such as a pressurized release or electric arc blast?
- Caught: Can the worker become caught or entrapped by any opening or configuration? Can the worker become caught in or caught between any moving equipment, pinch point or nip point?
- Fall: Can the worker slip or trip on anything which may result in a same level fall? Can the worker fall from one level to another?
- Strain: Can the worker be injured from excessive strain from lifting, pushing, pulling, repetitive motions or awkward postures?
- Exposure: Can the worker be injured from exposure to heat, cold, noise, air quality or other environmental dangers?

JSA: CREATE CONTROL MEASURES FOR EACH STEP

- Once the potential hazards of each step of a job task are identified the best methods to control those hazards must then be developed and listed on the job safety analysis.
- When developing methods to control potential hazards, many companies follow the following hierarchy of controls:
- The first choice is to eliminate the hazard by removing it from the area. For example, a hazardous chemical may be replaced by a non-hazardous one or a low hanging object may be removed.
- If it's not possible to eliminate a hazard, the next choice is to use engineering controls to control the hazard.
- If a hazard cannot be completely controlled by engineering controls, then controlling the hazard through administrative controls is the next choice.
- Administrative controls also include work procedures such as following lockout tagout procedures or performing pre-operational inspections.

- Lastly, the use of personal protective equipment is the final option to protect employees from hazards which have not been controlled by other means.
- Once the JSA for a job is completed, it should then be used for the development and implementation of safe work practices and employee training.

SAFETY AWARENESS

- Safety awareness includes not only a recognition of potential hazards, but also an awareness of what is happening in your immediate work area and an understanding of how your actions and the actions of those around you may impact your safety, both now and in the near future.
- In other words, safety awareness is seeing and understanding what is currently happening around you, while also thinking ahead to anticipate and prevent problems.
- Recall that a job safety analysis is specific to a unique job task. This is different than the concept of safety awareness which is more personal and fluid; moving about with each individual.

HAZARD RECOGNITION

- Of course, one component of safety awareness must be hazard recognition. You can think of hazard recognition as a mini-job safety analysis, applied to your next planned action or movement.
- Whether you are at work or at home, always take a moment before starting any job and evaluate it for hazards.
- Make sure that what you plan to do makes good sense and isn't inherently dangerous.
- This allows you to envision the steps of the job so you can foresee any hazards or pitfalls.
- Take a moment and look around for potential hazards, then decide what you must do to protect yourself from injury from those hazards.
- Remember, hazard recognition is like a personal version of a job safety analysis. This is what safety professionals mean when they say, "Think before you act."
- A moment of thought can easily prevent a lifetime affected by injury.

MAINTAINING AWARENESS

- Hazard recognition is just one part of the concept of safety awareness. Let's now discuss the "awareness" part of safety awareness.
- One definition of awareness is "seeing and understanding what is going on around you while also thinking ahead to anticipate and prevent problems."

Situational Awareness

- NASA, the military and other organizations that require their personnel to perform complex tasks often refer to this concept as "situational awareness."
- For example, a pilot who loses situational awareness may inadvertently fly right into the ground.
- Similarly, an industrial maintenance worker who loses his situational awareness may step off an unguarded edge.
- In each instance, the person lost their awareness of the hazards around them; unfortunately, for both the pilot and the maintenance worker, the result is the same.

- Similarly, many hand injuries, eye injuries, head injuries, falls, moving equipment incidents and traffic collisions occur due to a loss of situational awareness.

Causes Of Loss Of Awareness

- Here are some common causes of workers losing their situational or safety awareness:
 - Excessive amounts of stress or tiredness make us vulnerable to losing focus;
 - Working in extreme temperatures, being exposed to loud noise or excessive vibration can also be draining on our ability to maintain safety awareness;
 - Maintaining safety awareness is also impacted by pressure to perform. Pressure may come from external sources like supervisors and co-workers or from internal sources like your own desire to finish by a certain time.
- Complacency also contributes to a loss of safety awareness. When doing the same job over and over again, our mind can sometimes wander or tune out.

Signs & Symptoms Of Loss Of Awareness

- No matter the cause, a loss of awareness is a real safety issue which must be controlled. To do this, it's important that you be able to recognize the signs and symptoms of a loss of situational or safety awareness.
- You may find that you're momentarily confused or not able to recall what you are supposed to be doing.
- You may find yourself using the improper procedure for a job or failing to follow normally required procedure at all.
- While performing the task, you are confronted by abnormal issues or unexpected results.
- You may also become fixated on a small part of the job while being oblivious to the job as a whole.

Corrective Action

- If you notice these symptoms in yourself or others, step back from the job and reassess the situation.
- Go back to the beginning of the task or start over at step one of the procedure.
- If others are involved, communicate your concerns and make a new work plan.
- Get to the bottom of any unexpected issues or abnormal issues. Do not continue working until abnormal conditions are corrected or controlled.

CONCLUSION

- In this program, we have explained that injury prevention begins by recognizing the hazards to which a worker may be exposed.
- We explained the process of conducting a job safety analysis and how performing a JSA leads to the development of safe work practices and procedures.
- We also explained the concept of safety awareness and how its components of hazard recognition and situational awareness enable workers to stay safe.
- Job safety analysis, safety awareness and you: these are the key components to recognizing and controlling hazards. These are the key components to injury prevention.

PREPARE FOR THE SAFETY MEETING

Review each section of this Leader's Guide as well as the program. 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 program. Play it 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.

Make an attendance record 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 video 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 program.

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 discuss the important roles played by both management and employees in recognizing and controlling workplace hazards and how this shared duty of safety awareness and hazard recognition helps prevent injury.

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

Lead discussions about how job safety analyses are conducted at your facility as well as specific tasks that could result in injury if employees were to lose their awareness.

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

- What a job safety analysis and when one should be performed;
- What information a completed JSA should contain;
- How the process of developing a JSA works;
- What safety awareness is;
- How the practice of hazard recognition can help employees avoid injuries;
- What situational awareness is and why workers must not lose it;
- What the causes as well as signs and symptoms of loss of awareness are;
- What corrective actions can be taken once an employee notices signs and symptoms of awareness loss.

JOB SAFETY ANALYSIS, SAFETY AWARENESS AND YOU
REVIEW QUIZ

Name _____ Date _____

Please provide answers to the following to show how well you understand the information presented during this program.

1. The ultimate goal of a job safety analysis is to reduce risk or hazards to as low as reasonably practical to protect workers from injury or illness.
 - a. true
 - b. false
2. The only time a job safety analysis should be performed is when a new job task has been introduced into the workplace.
 - a. true
 - b. false
3. You should wait until the job safety analysis is completed before correcting obvious hazards.
 - a. true
 - b. false
4. Why should a list of job steps be reviewed with the worker who performed the job?
 - a. to find out if he or she committed an unsafe act
 - b. to make sure no tools or equipment malfunctioned while performing the job
 - c. to make sure no steps have been omitted
5. The first choice in controlling hazards is to eliminate it by removing it from the area.
 - a. true
 - b. false
6. What is the final option for controlling hazards if they can't be controlled by another other means?
 - a. administrative controls
 - b. engineering controls
 - c. personal protective equipment
7. Many injuries occur due to workers' loss of situational awareness.
 - a. true
 - b. false
8. The definition of awareness offered in the program is "seeing and understanding what is going around you while also _____".
 - a. reflecting back on the causes of past mistakes you have made
 - b. thinking ahead to anticipate and prevent problems
 - c. ignoring anything that could distract you while working
9. What should you do find yourself losing your safety awareness?
 - a. continue working until you reach a good stopping point to address the situation
 - b. continue working until the task is complete and then go back and start over
 - c. stop and reassess the situation then go back to step one.
10. Complacency has little or no effect on the likelihood we will lose our safety awareness.
 - a. true
 - b. false

ANSWERS TO THE REVIEW QUESTIONS

1. a

2. b

3. b

4. c

5. a

6. c

7. a

8. b

9. c

10. b