UNIVERSITY OF SOUTH FLORIDA

Job Safety Analysis (JSA) Procedures

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Contents

Introduction

USF is committed to providing a safe and healthy environment for students, employees, and visitors. Preventing workplace injuries and illnesses by looking at our workplace operations, conducting job safety analyses, establishing proper job procedures, and ensuring all employees are trained properly is one of the best ways to protect employee health and safety. Conducting job safety analyses is one component of the University's larger commitment to health and safety.

Purpose

The purpose of these Job Safety Analysis procedures are to provide supervisors and managers with effective tools and information in order to assist in performing a Job Safety Analysis (JSA). Performing an effective JSA anticipates what could go wrong in order to identify and reduce or eliminate hazards associated with a job or task; thereby, resulting in fewer worker injuries and illnesses; safer, more effective work methods; reduced workers' compensation costs; and increased worker productivity. The analysis can also be a valuable tool for training new employees in the steps required to perform their jobs safely.

Definitions

- **Activities** are the components of a person's job. A person's job may include many activities, which include performing specific work such as oxy-acetylene welding, operating a forklift, mopping floors, etc. Activities can be divided into individual steps or tasks.
- **Control Measures** are used to eliminate or minimize job/task hazards. There are five types of control measures, listed here according to their levels of effectiveness.
    1. **Elimination** is the most effective control measure because it removes the hazard altogether.
    2. **Substitution** is replacing the hazard with a non-hazardous or less hazardous option.
    3. **Engineering controls** eliminate or reduce exposure to a chemical or physical hazard through the use of engineered machinery or equipment, such as fume hoods or sound booths.
    4. **Administrative controls** are changes in work procedures such as written safety policies, rules, supervision, schedules, and training with the goal of reducing the duration, frequency, and severity of exposure to hazards.
    5. **Personal Protective Equipment (PPE)** – Personal protective equipment, commonly referred to as "PPE", is equipment worn to minimize exposure to hazards that can cause workplace injuries and illnesses.
- **Hazards** are associated with conditions or activities that, if left uncontrolled, can result in injuries or illnesses. A sampling of hazards includes: working at heights, slippery surfaces, exposed moving machinery parts, fires, explosions, noise, electricity, toxic emissions, corrosive chemicals, low oxygen, repetitive tasks, heavy lifting, infectious pathogens, and assaults.
- **Job Safety Analysis** is a process that focus on job tasks as a way to identify hazards before they result in injury. It focuses on the relationship between the worker, the task, the tools and equipment, and the environment, and identifies control measures to reduce or eliminate the hazard.
- **Steps or Tasks** are individual components of an activity listed in a JSA that are analyzed for hazards, control measures, PPE, and training requirements.

Job Safety Analysis Process

Prior to undertaking the JSA process, complete online JSA training, and see the JSA Example - Forklift and JSA Example Data documents for additional information.

Select a Job or Activity for Analysis

Select jobs or activities based on the following priorities. JSAs can be completed by individual activities or by a collection of activities that make up an individual's job. The latter can be quite useful when you have several employees doing many of the same activities. The former is useful when an employee has few activities or when a new activity is added.

- Jobs with highest rates of injury, illness, or frequency.
- High-risk jobs with potential to cause severe injury or illness.
- New jobs.
- Jobs with changes to equipment, process, or procedure.
- Jobs with complex procedures.
- Ultimately, all jobs within the unit.

Prepare for the Analysis

Once a job or activity has been selected, and before beginning the analysis, remember to involve the employee(s), review incident histories and accident investigations, review any past inspections, and review existing JSAs for similar jobs. Doing these things before starting the analysis will provide insights that will assist in the process.

Break the Job/Activity into Steps/Tasks

Now that you are prepared to perform the analysis, observe the job or activity being performed and document the individual steps or tasks completed. Take good notes to assist in completing the JSA form.

- List each step/task sequentially as to how the job/activity is done.
- Document potential hazards for each step/task.
- Review the steps/tasks with employee(s) and get their input on hazard controls.
- Address any dangerous hazards immediately.

Identifying Hazards

When identifying the hazards for each step it is vital to look for things that could go wrong. Be on the lookout for unsafe behaviors and unsafe conditions that exist or might occur.

Unsafe behaviors

- Failure to follow established standards & procedures for the task or activity.
- Examples:
    - Not meeting required qualifications and/or training.

Unsafe conditions

- Failure to recognize critical elements in the workplace environment, such as:
- Environmental, Biological, Chemical, and Physical conditions
- Examples:

- Not implementing safe work practices.
- Toxic chemical buildup.
- Excessive heat in an enclosed work area.

Identify Control Measures

The "Hierarchy of Controls" provides the preferred type of controls by effectiveness (see Definitions above). One should always try to implement elimination, substitution and engineering controls before moving to administrative controls. The last line of defense, when all other options have been implemented or found to be infeasible, is the use of Personal Protective Equipment. Often, unless a hazard is entirely eliminated, more than one type of control measure may be necessary.

Obviously the more reliable or less likely a hazard control can be circumvented, the better. Discuss your recommendations with all employees who perform the job and consider their responses carefully. If you plan to introduce new or modified job procedures, be sure they understand what they are required to do and the reasons for the changes.

Complete the JSA Form

Once the analysis has been completed it is time to complete the Job Safety Analysis Form. The form is quite simple to use if the example document and the sample JSA information document are followed. The concept of completing JSAs by individual activities or by a collection of activities that make up an individual's job requires a little further explanation. Remember, an employee's job is made up of a collection of activities, and activities are made up of a collection of steps or tasks.

When completing the JSA Form, the JSA Title field should reflect the job or activity covered. Where you are going to cover an employee's entire job, you would list the employee's Position Title in the JSA Title field. You would also, mark "Entire Job" in the JSA Covers field (see the Example Forklift JSA).

If the JSA only covers part of the employee's job, then "Partial Job" would be marked in the JSA Covers field, and the JSA Title field would be filled in with an appropriate description of the activities covered.

The JSA Form also has a field for PPE / Training Requirements. When a control measure requires the use of personal protective equipment and/or specific training, those are listed in this field. Once a required training has been identified in the JSA, it need not be repeated for other steps or tasks. PPE requirements may be repeated or referenced as needed.

When the JSA Form is completed, the supervisor reviews it with the employee and both sign and date the form.

Conduct Periodic Reviews

Periodic review of JSAs ensures they remain current and continue to help reduce workplace accidents and injuries. Even if the job or activity has not changed, it is possible that during the review process you will identify hazards that were not identified in the initial analysis. Review JSA if an illness or injury occurs during a specific job/activity or if an employee's failure to follow proper job procedures results in a "close call." Discuss the situation with all employees who perform the same job/activity, and remind them of proper procedures. Any time you revise a JSA, it is important to train all employees affected by the changes in the new job methods, procedures, or protective measures adopted

Using the Job Safety Analysis

Once completed, the Job Safety Analysis becomes a powerful tool for conducting employee job safety training, making process improvements, developing standard operating procedures, developing JSAs for similar jobs, and other loss prevention planning & activities.

References

- Job Hazard Analysis, OSHA 2002 (revised)
- Course 706 - Conducting a Job Hazard Analysis (JHA), OSHAcademy Occupational Safety and Health Training
- Florida Division of Risk Management JSA Training, 2016
- Job Hazard Analysis (JHA), NC State University, EH&S