

Before you begin

A job safety analysis (JSA) helps workers identify and prevent hazards before they happen. Review your company's operations to determine if you use JSAs. A JSA can include your company's safe work procedures, operating procedures, or even quality analysis.



Introduction

JSAs, which are also known as job hazards analyses, are a useful tool for any workplace. You can use JSAs to investigate accidents, for job training, and to evaluate new equipment. JSAs are great for identifying and minimizing hazards. They can also help bring employees back to work after an injury as part of a transitional work program.

Definitions

- Job steps – step-by-step instructions on how to perform a specific task
- Hazard – a source of danger that could cause injury, illness, or damages
- Safe procedure – action to take to safely complete a task by eliminating or reducing hazards

Discussion

So, who develops a JSA? A variety of employees can help develop your company's JSAs. You should consider including managers, supervisors, team leaders, and anyone with knowledge about a specific job. Be sure to include a job expert – someone who performs the task on a routine basis.

If you have not created JSAs, you should prioritize jobs as listed below.

- First priority – Jobs with a high frequency of accidents
- Second priority – Jobs with severe injuries or high loss
- Third priority – Jobs with the potential to cause severe injuries or high loss
- Fourth priority – New jobs without an accident history (e.g., new equipment/procedures, changes resulting from modifications on new/old equipment)

How to develop a JSA

To develop a JSA, you must first determine and document each step in a job. You may use operational documents to start and/or use the job “expert” to list the task steps. Next, identify the hazards in each step of the job. Be sure to consider striking objects, asphyxiation, falls, burns, exertion, electricity, chemical hazards, and vehicles.

Finally, recommend a safe procedure for completing the task. The safe procedure can include engineering or administrative controls as well as personal protective equipment (PPE).

Training

Practice makes perfect when it comes to creating JSAs. You can use an actual job to get started; or have a group write a mock JSA on a simple task (e.g., making a peanut butter sandwich). Examples of the job steps include:

- Gathering the supplies/ tools.
- Opening the container.
- Spreading the peanut butter.
- Cutting the sandwich and eating it.
- Cleaning up.

The hazards associated hazards may include dropping the glass container causing a cut; strain from opening the jar; being cut by the knife; and choking.

Some solutions include wearing steel-toed safety shoes; using proper opening tools; wearing cut-resistant gloves; and providing training in first aid for choking.

Job steps	Hazards	Safe procedure
Pre-job safety discussion	Determine/review hazards for this task	Determine safe procedures and any PPE needed
Gather materials	Dropping items/reaching high for materials	Wear close-toed shoes/use a step stool
Assemble all material: peanut butter, bread, butter knife	Dropping the glass jar/cut hazard/ sharp knife	Use plastic jar. Ensure hands are dry and use two hands. Use spoon
Opening the jar of peanut butter	Dropped materials or strained wrist from failed attempts to open the jar.	Use a cloth over the top of the jar to create a better grip. Wear close-toed shoes
Spreading the peanut butter onto the bread	Sharp knife/cut hazard	Wear cut-resistance gloves or use a spoon
Eating the sandwich	Choking - blockage of air passage	First-aid training/buddy system
Clean up	Tripping hazard/cut from sharp objects	Ensure work area is clean and hazard free

It is a best practice to start each JSA with the task of a pre-job safety discussion and end each JSA with house-keeping and clean up. These can be constant in every JSA.

Conclusion

Once you have developed JSAs, have safety personnel and/or upper management review the documents. Ensure each job step has a corresponding potential hazard and a safe procedure. Ensure the documents are accessible to all employees. Some companies post these documents in the work area or on a machine; some companies include them in operating manuals.

Group activity

Choose a job to focus on, and then have the group discuss:

- The steps of the job.
- The hazards associated with the job.
- The steps workers should take to avoid the hazards.

Use a work sheet, flip chart, or white board for this exercise. Create three columns labeled Job Steps, Hazards, and Safe Procedures. Have the group work together to complete the chart.

Resources

OSHA, Job Hazard Analysis Handbook

<https://www.osha.gov/Publications/osha3071.pdf>

OSHA, Oil and Gas Well Drilling and Servicing eTool – Job Safety Analysis (JSA)

https://www.osha.gov/SLTC/etools/oilandgas/job_safety_analysis_process.html

Canadian Centre for Occupational Health and Safety, Job Safety Analysis

<https://www.ccohs.ca/oshanswers/hsprograms/job-haz.html>