

Job Safety Analysis: A Best Practice for Your Workplace

by Debbie Feldman

Today's supervisors are under increasing pressure to improve on-the-job safety and decrease the risk of work injuries and incidents. Job Safety Analysis (JSA) is a tool that can help supervisors identify hazards on the job and contribute to worker safety and health.

What is JSA?

JSA is a systematic analysis of each task in a job, which specifies a step-by-step procedure for workers to follow, and identifies potential hazards and how to avoid them. A "task" is a segment of work that requires a set of specific actions for its completion. JSA enables employees and supervisors to look at tasks and identify hazards associated with those tasks, and to establish safer work procedures that will eliminate or minimize those hazards.

Job Safety Analysis is also called job-hazard analysis, activity-hazard analysis, or task-specific hazard analysis. JSAs are used in on-the-job training as well as in supervision. A supervisor and three employees who know the steps involved in a particular task make up a JSA team. One employee can do the steps of the task while the others watch and write down what they see.

"The JSA is part of an on-going safety management system," says Joseph R. Kelbus, CSP at the National Safety Council.

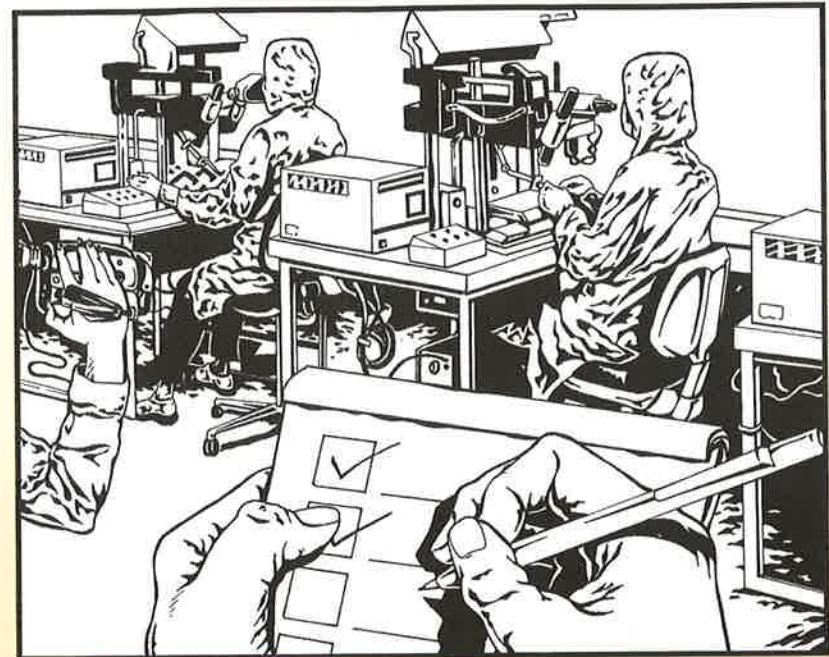
"JSAs are recommended best practices that help supervisors recognize the hazards of each job task and implement control measures to increase job safety."

"We use JSAs as effective and important training tools, and as audit tools — to observe and check the sequence of how a job should be done to make sure no steps are missed," says Michael Raabe, manager of Safety and Loss Control at Alcoa, Inc. Tennessee Operations in Alcoa, Tenn., which employs 1,800 workers.

The benefits

"JSAs are useful in safety talks, problem solving, incident investigations, and new employee orientation," says Kelbus. JSAs make jobs safer so there are fewer incidents and fewer people getting hurt. They also cut down on lost time and lost production because of incident-related injuries. And they improve workers' attitudes toward on-the-job safety and make them more aware of the importance of safety on the job.

JSAs tell employers several things. "They tell us what personal protective equipment (PPE) an employee should be wearing, what special procedures or equipment is needed in a particular job (a fall harness, for example), and what happened that caused an incident," says Raabe.



Break it down

The basic steps in performing a JSA are:

- ◆ Take inventory of occupations and jobs
- ◆ Select which jobs are to be analyzed
- ◆ Divide the task into steps
- ◆ Observe each step
- ◆ Identify hazards
- ◆ Develop solutions and procedures to eliminate each hazard
- ◆ Review the JSA
- ◆ Implement the JSA

As these steps indicate, you must first decide which jobs to analyze and put together a list of tasks to examine. For example, a JSA should be done for each individual task a welder performs; not for the welder's job. Next, prioritize those tasks, with those that have caused or could cause the most severe and frequent inci-

dents and injuries as top priority. One way to do this is to pinpoint where most incidents have occurred, or check with company medical records. Tasks that have dangerous steps but have not yet produced incidents are another priority. New jobs that have just started should also be selected for JSA. The list of tasks to be analyzed should be updated as the company adds new tasks or changes its equipment or machinery.

Watch and learn

After you decide which tasks to analyze, decide who should be involved in the safety analysis process. Meet with employees who used to perform the task, as well as those who are now doing so. Find those employees who know the job. Write the JSA as the workers who do the job walk through it with you. In addition to observing workers on the job, you can videotape each task. You can then go back to your office and watch the video again to see if you've

missed any tasks or steps. Remember that even a seemingly simple task can have many steps.

Videotape gives you a permanent record that is useful to see if there's anything missed or that you failed to record during an observation. "We use videos in entry-level jobs, which usually require a lot of training, and in jobs where there is a lot of turnover," says Raabe.

Fill out the form

Write your findings on a JSA form. A JSA form has four parts. The top of the form has space for information about the task, the company, the people involved in the JSA, and the personal protective equipment (PPE) needed to do the task. The left-hand column lists the basic steps of the job and the order in which they are performed. The middle column describes all hazards connected to each step listed in the first column. The right-hand column suggests ways to eliminate or reduce the hazards. You can also list the job title, date, title of the person who does the job, name and location of the plant, department name, and supervisor's name at the top of the form.

Be sure to number the steps and list them in the order in which they are performed. Use actions words, like "load," "unload," "turn on," or "lift." Tell briefly what is done in each step. Do this until you have listed every step in the task.

When you list hazards, be sure to include physical, chemical, mechanical, and job or workstation hazards. When you're identifying hazards, consider the following:

- ◆ Is there danger of striking or being struck by an object?

- ◆ Is there danger of being caught in, by, or between objects?
- ◆ Is there danger of slipping, tripping or falling?
- ◆ Can pushing, pulling, lifting, bending or twisting cause strain?
- ◆ Is there danger of harm to the eyes, hands, feet, or other parts of a worker's body?

For each hazard you've identified, recommend a way to eliminate the hazard or reduce the chance of an incident. Once the form is complete, send it to your safety director for review. Give each employee a copy of the completed JSA. You can laminate and post each form near the appropriate work site or put all the JSAs in a binder and keep it on your desk so that it's available to all employees. Employees and supervisors should have access to JSAs every day and use them when necessary.

Get in the JSA habit

Companies should review their JSAs every 6 to 12 months if a task hasn't changed. Whenever a task changes, or if there has been an incident on the job, it's time to review a JSA. If an incident occurs, look at the JSA to see if the JSA needs updating or revising. If it does, be sure to retrain all employees who perform that task.

"We rewrite our JSAs every two years — to be proactive and find out whether anything about a particular job has changed since the last JSA. We're also reactive in that during an incident investigation, we review the JSA to see what might have gone wrong to cause the incident," says Raabe.

Encourage employee participation

Before a JSA is approved, check with the workers you observed, and be sure all the steps are listed and in the correct order. Ask the workers if they can think of any additional hazards to add to the JSA. Have your workers test the safety recommendations. That way, you can be sure they work. When employees participate in the JSA process, they develop more positive attitudes toward workplace safety.

Remember that your employees are the experts at their job tasks. Supervisors depend on their employees to give them a step-by-step rundown of their jobs, identify the hazards associated with each step, and recommend ways to keep the hazards under control. "We invite our employees to participate in writing JSAs," Raabe reports.

What's next?

JSAs can be used as training guides for new employees, refresher training for current employees, and to assess why an incident occurred. JSAs can help injury investigators determine what an employee was doing at the time an incident or injury took place. For more information on writing JSAs, call the National Safety Council at (800) 621-7619 and ask for the pamphlet entitled, "Job Safety Analysis." ◆

