

A process for uncovering hazards in the way your business works.



Job hazard analysis is a self-inspection tool created to help businesses prevent accidental losses.

A **job hazard analysis (JHA)** is a procedure used to identify flaws that may be present in the way work gets done in your organization. The job being evaluated can be anything from the combination of steps employees take while changing a flat tire on a fleet vehicle, to the process workers use to produce the finished goods a business manufactures. JHA is a self-inspection tool created to help businesses prevent accidental losses, and it can be applied both to existing jobs and those yet to be introduced.

A systematic review of all your jobs.

Finding an unsuspected hazard after an accident takes place is easy. The challenge is to find and control hazards *before* a loss occurs. JHAs can help your business accomplish that through a systematic review of all jobs. The goal is to identify unexpected hazards overlooked in the planning/design phase, or that slip in as a result of subsequent modifications in work processes, site layout, equipment and tools, raw materials, as well as any intermediate and final products. These interim changes can increase the job hazard exposure in unexpected ways. When hazards are identified, the JHA shifts gears to developing recommendations for effective controls that can be implemented before the hazard can become an accident.

The JHA process focuses on the following factors and the corresponding negative consequences associated with them:

- **Physical hazards** — Slips, falls, burns, sprains, strains and cuts associated with a job
- **Hazardous materials and/or energies** — Short and long-term exposures to harmful environments, toxic substances (chemicals) and/or hazardous energies (electricity, heat, radiation, noise)
- **Ergonomic risk** — Hazardous motions, awkward postures, highly repetitive or forceful actions or tasks, focused impacts and vibration
- **Work rule or procedure-related risks** — Worker confusion due to poorly defined rules or the implementation of procedures that are unnecessary, outdated or incorrect; also, employee shortcuts, habits, personal preferences and practices passed on from other workers that alter the way a job is done and lead to injury or property damage
- **Special aptitudes, knowledge, skills and/or physical requirements for a particular job** — Danger to workers who lack the correct knowledge and skill set to perform jobs competently, or missed opportunities by management to recognize a preferable option of redesigning a job so a larger number of workers can handle it without danger of harm



In a JHA, complex jobs are broken down into a series of simple tasks.

- **Special tools or equipment** — Workers with the need for better tools or controls to do a job most effectively, including options that may not have existed when the job was designed
- **Job training** — Inadequately trained workers; JHA feedback can improve the training by helping to ensure that workers not only receive the knowledge and skills necessary to perform their jobs safely and efficiently, but that the training will be delivered at the right time, by the right people, to the people who need it, and in the most effective manner

Three basic approaches to analyzing a job.

Your first step in a JHA is to decide on the approach to be used to analyze your jobs. There are three basic choices. Each has its merit, and there are no rules against using more than one approach. Here they are:

- **Analysis by individual job** — This is the most common approach. Each job is analyzed independently. When jobs are complex, the JHA breaks them down into a series of simpler tasks. Each task or step is then analyzed for hazards. For example, some of the steps in changing a vehicle tire might be:
 - Step #1** — Safely pull the car off the road
 - Step #2** — Get out of the car
 - Step #3** — Remove the spare tire and jack from the trunk
 - Step #4** — Position the jack, etc.
- **Analysis by tool, machine or piece of equipment** — This is the simplest approach. It applies to operations where specific kinds of tools, machines or equipment are used by large numbers of employees. This would include computer workstations, drill presses, chainsaws or jackhammers. Instead of evaluating every machine, a representative sample can be selected.
- **Analysis by job classification** — This approach applies when the same type of job is performed in different areas, such as painting, electrical work, general maintenance or housekeeping. While tools and methods remain comparatively constant, the type and degree of hazard can vary from job to job and site to site.

Once you select an approach.

To obtain the greatest benefit in the shortest amount of time, prioritizing tasks is necessary. The following guidelines can be used to help determine the order in which jobs can and/or should be analyzed. Begin with jobs:

- That produce the highest number of losses; consider both injuries and property losses
- That can be tied to serious or disabling injuries and/or severe property damage

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- That create the potential for serious or catastrophic loss
- That are new and/or where there have been significant changes to the equipment, process controls and/or work methods
- With high-turnover
- Involving solitary work, including tasks performed by workers who supervise themselves without direct monitoring (e.g., maintenance, mobile, healthcare and late-shift workers)
- Incidental or non-routine jobs, which should be carefully analyzed both before they start and while work is ongoing; these jobs should be planned well in advance so as to anticipate hazards that might reasonably be encountered; methods or procedures to eliminate or control such hazards should be developed before work begins

Presenting the program to top management.

Like any other program, JHA should be presented to top management first. Once there is management commitment and an individual is designated to be responsible for overseeing the program, there should be agreement on the following:

- Approaches that will be used
- Who will perform the analyses
- Training that will be necessary
- Report forms and format, including the final report format
- Report distribution and how records will be kept

Identifying hazards: Steps you go through when conducting an analysis.

Step #1 – Define the job. This is an executive summary-type description. It should include only enough detail to properly identify the job and differentiate it from other jobs.

Step #2 – Break the job into a sequence of manageable steps or tasks. In each step, briefly describe what is being done; focus more on the “what” as opposed to the “how.” In writing these descriptions, emphasize verbs and identify what the action is applied to. Example: lift the tire from the trunk, raise the car, type data using the keyboard, etc. Tip: When analyzing an existing job, enlist the help of an experienced worker. He or she can model the process and verify your assessment of the steps involved.

Step #3 – Compare the observed process with the job description and applicable work procedures, and note any discrepancies or deviations. Differences or irregularities could be potential hazards and a cause of accidental loss.



All tasks performed by unsupervised workers should be thoroughly analyzed.

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Step #4 – Identify hazards, both actual and potential. Hazards are the events, occurrences, circumstances and/or situations that can increase loss exposure. At this point, the “how” becomes very important. Personnel conducting the analyses should be prepared to study each job and its component steps, and consider all possibilities of injury and damage. For example, can the employee:

- Be struck by a moving object or collide with a fixed object
- Get caught in moving equipment
- Slip or fall, strain or overexert
- Become exposed to harmful substances, biohazards, noise, electricity, heat, cold or radiation
- Be subject to awkward and harmful postures, repetitive activity, lifting or twisting
- Be in danger from flammable or explosive materials, or high-pressure systems
- Become confused by controls not logically arranged
- Be in danger due to the absence of adequate safeguards

Step #5 – Prioritize the risks and develop appropriate controls. After documenting potential hazards, the final step involves assessing the risks and developing options to manage them. These could include:

- Finding new ways to do the job, resulting in better, safer, more effective work procedures
- Reviewing management or administrative controls in areas such as process design and purchasing
- Fine tuning of job descriptions and establishing specific physical, knowledge and skill requirements for employee selection
- Changing the physical conditions that create hazard(s) by making adjustments to lighting, ventilation, machine and energy guarding, and noise abatement
- Improving the worksite, equipment and processes by substituting less hazardous materials, ergonomically designed tools, improved workstation design and job aids
- Improving training programs and procedures
- Providing appropriate personal protective equipment

**LOOK TO OSHA FOR
TIMELY INFORMATION
ABOUT WORKPLACE
SAFETY AND HEALTH.**

For more information about job hazard analyses and other topics of interest to employers, we encourage you to review the *OSHA Safety and Health Program Management Guidelines*. To view or download a copy, visit osha.gov.shpmsguidelines.



Providing solutions
to help our members
manage risk.SM

For your risk management and safety needs, contact Nationwide Loss Control Services: 1-866-808-2101 or LCS@nationwide.com.