

JOB HAZARD ANALYSIS

IDENTIFY

Serious incidents are a real threat to construction project sites. If we are managing these situations through trial and error, we are not doing everything reasonable or practicable.

A far better approach is to find out in advance what could happen and implement measures to prevent it. That's where the job hazard analysis (JHA) comes in.

This is a procedure whereby a task is broken down into basic steps. These are examined in detail to identify potential hazards and determine the best way to eliminate or control them.

In addition to fewer worker injuries and illnesses, the analysis can result in more effective work methods, reduce worker compensation costs, and increase productivity. A JHA is a valuable tool for training new employees.

These are examples of jobs that typically are given priority for JHAs:

- Jobs with the highest injury or illness rate.
- Jobs with the potential to cause severe or disabling injuries or illness, even if there is no history of previous incidents.
- Jobs in which one simple human error could lead to a severe incident or injury.
- Jobs that are new to an operation or have undergone changes in processes and procedures.
- Jobs complex enough to require written instructions.
- Jobs that have had stop work orders or improvement orders issued by workplace safety and health (WSH) officers.
- Jobs that have had near misses occur.
- Jobs that are performed infrequently.

After a job has been chosen for analysis, the next stage is to break it into its sequence of steps.

COMMUNICATE AND CONTROL

The steps should not be too general, otherwise some hazards might be missed. On the other hand if steps are too detailed, there will be too many of them.

A rule of thumb is that most jobs can be described in fewer than ten steps. If more are required, the job can be divided into segments, each with its separate JHA, or steps could be combined where appropriate.

This part of the analysis usually involves watching a worker do the job. The observer is often that person's supervisor, but involving other workers, such as a member of the WSH committee, reduces the risk of key points being missed.

The individual being observed should be experienced, safety-conscious, and capable of doing all steps in the job.

Once the steps have been recorded, attention turns to identifying the hazards.

Some key questions to answer:

- Is there danger of striking against, being struck by, or incurring other injuries from an object on site?
- Can the worker be caught in or between objects?
- Can the worker suffer lacerations from blades or other sharp objects?
- Can the worker be pulled into gears, pulleys, or other moving machinery parts?
- Is there potential for electrical contact to occur?
- Is there potential for a slip, trip, or fall?
- Are there MSI strain exposures from pushing, pulling, reaching, twisting, or lifting?
- Are there environmental hazards in the form of heat, cold, radiation, noise, vibration, chemicals, gases, vapours, fumes, mists, or dusts?

If so then it's a matter of determining ways to eliminate or control the hazards that have been identified. Generally, the options are to:

- Find a new way to do the job.
- Change the conditions that create the hazard (equipment, materials, or ventilation, for example).
- Change the pace of work or when the job is done.
- Provide task-specific training.
- Require appropriate personal protective equipment.

COMMUNICATE AND CONTROL

When conducting a JHA, the applicable workplace safety and health regulations and standards for a particular industry should be considered. Compliance with these standards is mandatory and incorporating them into a job hazard analysis helps ensure that a safety and health program meets federal, provincial, and/or territorial requirements.

Reviewing JHAs periodically will keep them current and able to help reduce workplace incidents and injuries. Even if the job has not changed, it is possible that during the review process hazards will be revealed that were not found in the initial analysis.

It is particularly important to review a JHA if an illness or injury occurs on a specific job, or if a job process changes (a new tool is purchased, or a new chemical is used). But such incidents should not be a starting point for developing safe procedures.

THE QUIZ

1. The best time to conduct a job hazard analysis is after a serious incident has occurred:
TRUE _____ FALSE _____
2. Increased worker productivity can be the result of job hazard analysis:
YES _____ NO _____
3. Which of these are typically given priority for JHA? (Circle all that apply.)
 - a) Jobs with high injury or illness rates
 - b) Jobs that are done indoors
 - c) Jobs that are new to an operation or have undergone changes in equipment
 - d) Jobs that are performed infrequently
 - e) All of the above
4. A JHA should break a task down into no more than 10 steps:
TRUE _____ FALSE _____
5. Which of these are among hazards that a JHA seeks to identify?
 - a) Being struck by an object
 - b) Being caught in or between objects
 - c) Slips, trips, and falls
 - d) Toxic gases or fumes
 - e) All of the above
6. Changing the pace of work can help control certain hazards:
TRUE _____ FALSE _____
7. Which of these should be consulted when conducting a JHA?
 - a) First aid manuals
 - b) Regulations and standards that apply to the industry
 - c) Municipal bylaws
 - d) None of the above
8. Has a JHA been conducted for any of the jobs you do?

1. FALSE; 2. YES; 3. a, c, and d;
4. TRUE; 5. e; 6. TRUE; 7. b; 8. Site-specific answer

ANSWERS: