A **Job Hazard Analysis**, or JHA, is a way to carefully study a job before it starts. The purpose is to find hazards before they cause injuries.

- Every job has steps, tools, and a specific work environment. A JHA looks at how these things fit together and identifies where the risks are in the job.
- The goal of a JHA is simple: identify hazards and then eliminate them or reduce them to a safe level.
- By identifying hazards ahead of time, the job can be done safely instead of reacting after something goes wrong.

A job hazard analysis is especially important for jobs that:

- have the potential to cause severe injuries or illness
- could result in a severe accident from a single human error
- are new or have undergone changes in the procedures
- are complex enough to require written instructions

Before starting roof repair, a JHA would identify hazards like falling from the roof, misfiring a nail gun, or being struck by falling materials. Controls might include using fall protection, setting guardrails along the roof edge, placing a barricade below to protect others, and ensuring nail guns are inspected and used correctly.

Hazards are rarely caused by one single thing. Usually, several smaller issues line up to create the risk. The JHA helps to spot those factors and prevent them from combining into an accident.

A job hazard analysis is an exercise in detective work. The goal is to discover the following:

1. What can go wrong?
2. Where could it go wrong?
3. How could it go wrong?
4. What could happen if something goes wrong?
5. Who or what is at risk if it does go wrong?
6. What are other contributing factors?
7. How likely is it that the hazard will occur?

Writing down the answers to these questions on a job hazard analysis ensures that everyone on the crew is aware of the same hazards and knows the safe plan for each construction task.

On a road project, workers are setting up a work zone. Hazard: a driver could strike a worker. Cause: limited visibility or distracted driving. Consequence: severe injury. Controls: flaggers, advance warning signs, reflective vests, and cones set in a taper to guide traffic safely away from the crew.

After hazards are identified, the next step is choosing how to control them if they can't be eliminated.

- Not all hazard controls are equal. Some are more effective than others at reducing the risk.
- Most jobs require a combination of hazard controls to reduce or eliminate the risks.

Here is the order of hazard controls, starting with the strongest and most effective:

1. Engineering controls physically change the jobsite or the equipment. Examples include machine guards, guardrails, toeboards, dust collection systems, tool lanyards, trench boxes, and protective enclosures.

2. Administrative controls change how the job is performed. Examples include written safe work procedures, limiting exposure time, signs or alarms, using the buddy system, and training on safe work practices.

3. Personal protective equipment (PPE) is worn by the worker as a final layer of protection. Examples include safety glasses, hearing protection, gloves, hardhats, and steel-toe boots. PPE is important, but it should never be the only protection.

Cutting rebar with a power saw creates sparks, flying fragments, and loud noise. Engineering: guards on the saw and spark shields. Administrative: training on safe cutting practices and proper setup. PPE: face shield, safety glasses, gloves, hearing protection, and steel-toe boots.

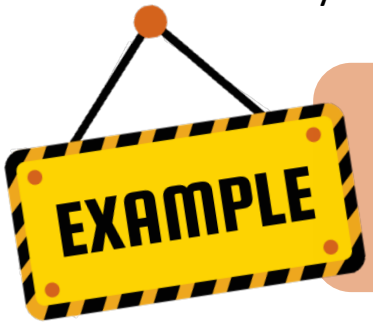
The job hazard analysis is not just for supervisors or safety managers. Workers play a key role because they know the job best.

On-the-job responsibilities include:

- Helping to identify hazards that will be documented on the JHA
- Reporting unsafe conditions or near misses
- Following the safe work steps listed in the JHA
- Using tools and equipment correctly
- Wearing assigned PPE

Workers should speak up if something seems unsafe. A JHA is only useful if it reflects the real conditions on the job.

- If the task changes, or if hazards are missed, it's important to let someone know.
- By actively participating, workers protect themselves and their coworkers. Safety is a team effort, and JHAs only work when everyone is involved.



A JHA for scaffold work identified hazards such as falling from height and being struck by dropped tools. During the job, a worker noticed a loose plank and reported it. The JHA was updated to require a plank inspection step, the scaffold was repaired, and the crew continued to work safely.

A JHA is not a “one and done” document. Jobs, tools, and work environments change over time. Even if a job stays the same, new hazards may be discovered during reviews.

- Continuous improvement is the goal. By regularly reviewing JHAs and listening to worker feedback, construction crews can stay ahead of the hazards.

Updating the job hazard analysis ensures that it stays current and useful. JHAs should be reviewed:

- on a regular schedule
- whenever a job changes
- after an accident, injury, or near miss
- when new equipment or materials are introduced
- when workers raise new safety concerns
- before starting seasonal or infrequent tasks

During concrete pouring, a worker slipped on a wet surface and sprained their ankle. Reviewing the JHA led to adding a step for cleanup and requiring slip-resistant boots. Updating the JHA after the incident improved safety for the whole crew.

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