



OVERVIEW

Hazard Identification is the foundation of a safe workplace. At its most basic level, hazard identification is simply looking at a job, task or a situation and asking, "Is there anything here that could hurt someone or damage something?"

But what if you're not quite sure what to look for? What is a workplace hazard?

A workplace hazard is any practice, behavior or physical condition that has the potential to cause: injury, illness, damage to property; damage to the environment; or loss to a process. There are hazards in every type of job and every type of workplace. Everyone at the workplace: workers, managers and the employer, share in the responsibility to identify and control hazards. A hazard cannot be controlled (i.e. eliminated, reduced, or otherwise managed) until it has been identified.

HAZARD IDENTIFICATION TOOLS

There are many standard hazard identification tools that can help to document the hazard identification and control processes. Refer to the *Additional Resources* section at the end of this document for specific examples.

- **Inspection Checklists** are best for ensuring compliance with regulations, rules and policies.
- **Personal Protective Equipment (PPE) Assessment** forms are a valuable communication tool for teaching employees what PPE they need to wear to perform their work safely.
- **Pre-task planning (PTP)**, valuable when procedures and conditions change frequently, is often used as a reminder to employees of the risks associated with the operations they will perform during a particular time frame.
- **Job Hazard Analysis**, often referred to as a Job Safety Analysis (JSA), is an important accident prevention tool that works by identifying existing and/or potential hazards associated with a particular job.

JOB HAZARD ANALYSIS (JHA)

A JHA works by finding hazards and eliminating or minimizing them *before* the job is performed and *before* the employee has a chance to become injured. Use your JHA for job clarification and hazard awareness; as a guide in new employee training, for periodic contacts and retraining of senior employees, as a refresher for infrequent tasks, as an accident investigation tool, and for informing employees of specific job hazards and appropriate protective measures. Conducting the JHA using the OSU [JHA Worksheet](#) is a relatively simple process that involves the following three basic steps:

1. Determine the various Tasks that the employee will perform.
2. Identify the Potential Hazards associated with each task.
3. Determine which Controls are necessary to minimize or eliminate the potential hazards.

Types of Hazards in the Workplace

- **Falls**
- **Impacts** – either Struck by or Struck against.
- **Mechanical** – these hazards result in **caught-in, caught-on** and **crush** incidents with a mechanism of injury as either:
 - **Motions:** rotating, reciprocating and transverse.
 - **Actions:** cutting, shearing, bending and punching.
- **Vibration and Noise** – both high and low frequency vibration.
- **Toxics** – There are four routes of entry:
 - **Inhalation:** breathing toxics in.
 - **Ingestion:** eating or drinking.
 - **Absorption:** through the skin.
 - **Injection:** needles and other sharp objects.

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- **Heat and Temperature** – may be due to examples such as:
 - the environment,
 - chemical reactions,
 - combustion,
 - electrical current, and
 - mechanical motion.
- **Flammability / Fire**
- **Explosives** – including chemicals, dusts, solids, vapors, gases and equipment.
- **Pressure Hazards** – including ruptured cylinders, whipping hoses and lines and water hammer.
- **Electrical Contact** – including shock, ignition of combustibles, overheating of equipment, arc flash and inadvertent activation of equipment.

CONTROLLING HAZARDS

There are two primary control strategies; Control the Hazard and Control Exposure to the Hazard. These two strategies are commonly addressed through the Hierarchy of Controls. The Hierarchy of Controls can be arranged into several different groupings. Generally speaking, and when feasible, controlling the hazard is more effective than controlling the exposure.

Hazard Control

- **Elimination** – Physically removing the hazard from the workplace is *the most effective hazard control*. No hazard = no risk.
- **Substitution** – Similar to elimination, substitution involves replacing a hazard with something less hazardous.
- **Engineering** – The workplace is designed to *physically isolate people* from the hazards.
Examples include:

- enclosures,
- barriers,
- guarding,
- baffles, and
- relocation.

Exposure Control

- **Administrative** – Also referred to as Management or Work Practice Controls, these are *changes to the way people work*.
Examples include:
 - procedure changes,
 - employee training, and
 - installation of signs and warning labels.
- **Personal Protective Equipment (PPE)** – This is the *least effective means of controlling hazards* because there are many factors that can render the PPE ineffective. PPE should always be considered *the last line of defense* and not the main or primary strategy for control. Whenever possible, controls should be adopted that minimize the reliance upon PPE for worker protection.

ADDITIONAL RESOURCES

SAIF (OSU's workers' compensation insurance carrier)

- [Effective Hazard Recognition and Control](#)
- [Controlling Health & Safety Hazards](#)
- [PPE Hazard Assessment Certification Form](#)
- [Pre-task Planning Worksheet](#)

OR-OSHA

- [Hazard Identification and Control Workbook](#)
- [Job Hazard Analysis \(JHA\) Workbook](#)
- [Quick Guide – PPE Hazard Assessment](#)
- [Online Courses / Current Workshops](#)