

-JHA-

Job
Hazard
Assessment

Is a Job Hazard Assessment Necessary ?

The Occupational Safety and Health Administration regulations confirm a JHA is needed.

OSHA 1910.132(d)(2) The employer shall verify that the required workplace hazard assessment has been performed through a written certification that identifies the workplace evaluated; the person certifying that the evaluation has been performed; the date(s) of the hazard assessment; and, which identifies the document as a certification of hazard assessment.

WAC 296-800-16005- You must: Look for and identify hazards or potential hazards in your workplace and determine if PPE is necessary on the job.

Note: PPE alone should not be relied on to provide protection for your employees. PPE should be used after all other reasonable means of reducing hazards have been carried out. Identifying hazards in your workplace should be built into your regular routine. You should take active steps to get rid of all identified hazards. For example, you can:

What is a Job Hazard Assessment?

- An assessment that focuses on job tasks as a way to identify potential hazards before they occur, and any protective measures to take.
- The assessment should focus on the worker(s), tools and materials, work environment and the task.
- Reduction or elimination of uncontrolled hazards to an acceptable risk.

Why is a Job Hazard Assessment Important

In 2015, in Washington State alone:

- 58 workers were killed in on the job accidents
- 36,000 employees missed work, and 22,000 had restricted duties due to injuries suffered on the job
- Over 108,000 employees had work site injuries.

One of the best ways to avoid injuries is to establish proper work procedures by conducting a job hazard analysis.

Training for Prevention

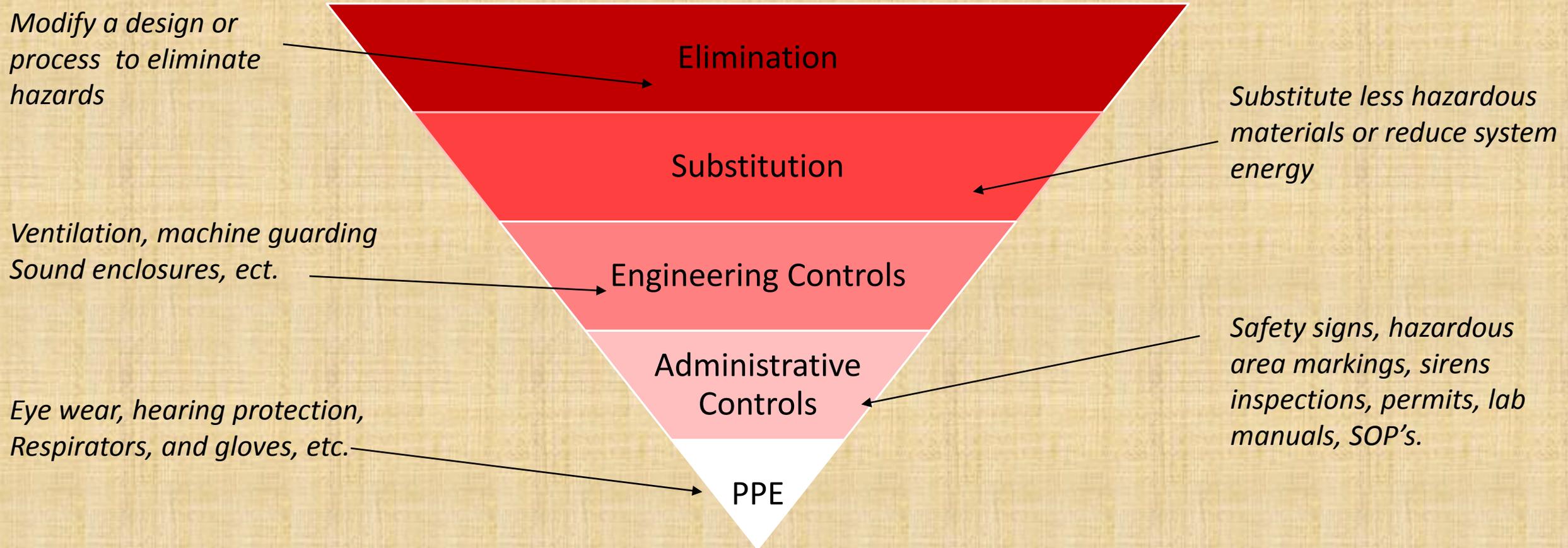
Workplace injuries and illnesses can be prevented by looking at workplace operations, establishing proper job specific procedures, and ensuring that all employees are trained properly.

- Proactively think about the hazards you might encounter
- Identify hazardous conditions
- Anticipate at every step – “what could go wrong”?
- Think about how to minimize the hazards identified
- Provide proper responses training for unforeseen events

Conducting a Preliminary Job Review

- Discuss hazards that currently exist in the workplace, or within a project.
- Determine appropriate planning controls to eliminate or regulate hazards.
- Determine if existing planning controls are adequate, or if new controls are required

Planning Controls



Implementing a JHA

All involved parties performing the job are to discuss and review each person's position and responsibility. Every employee and user must understand and sign the JHA before work begins.

Know who to go to or contact if there are questions and concerns about procedures. It is important to consider everyone's responses carefully.

If introducing new or modified job procedures, be sure everyone understands what they are required to do and the reasons for the changes.

Categorizing Hazards



Globally Harmonized System for Classification and Labeling of Chemicals

Chemical Hazards

Chemicals have four routes of exposure and it is important to read the Safety Data Sheet (SDS) for each new chemical you use. SDS's provide safe handling and hazard mitigation, as well as exposure limits.

Routes of Exposure		
<u>Type</u>	<u>Route</u>	<u>Example Controls</u>
Skin	Hands, and Arms	Barriers, Lab Coats, gloves
Inhalation	Mouth and Nose	Hoods, Respirators
Ingestion	Mouth and Nose	Barriers, gloves, hand washing
Injection	Skin Penetration	Barriers, remote handling, gloves

Physical Hazards

- Pressurized Cylinders or Systems
- High Temperatures
- Corrosive Chemicals (pH of less than 2, and higher than 10)
- Flammable Chemicals
- Reactive Chemicals (peroxide formers, and oxidizers, incompatible chemicals)
- Potential energy (electricity, hydraulic, gravity, etc)
- Moving parts/equipment
- Sharps

Identifying Hazards



Can you identify the hazards in these photos?

Identifying Hazards



Open, unlabeled samples create a hazard for other workers and potential of being knocked over



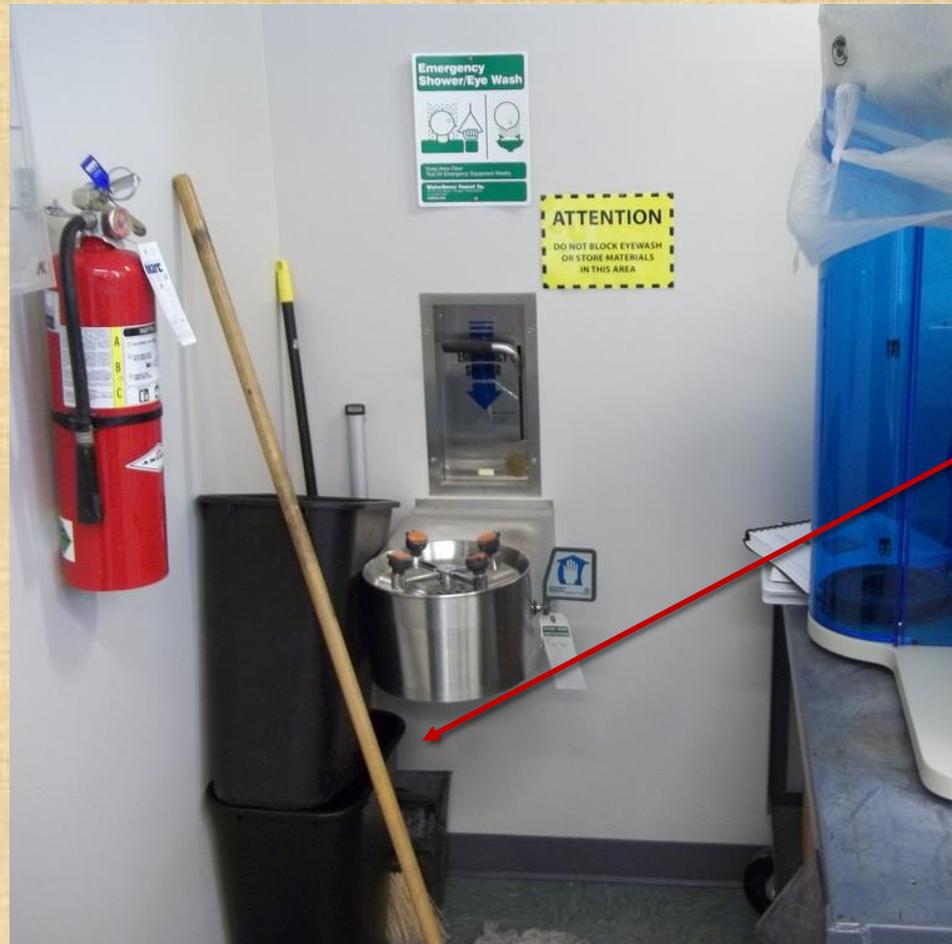
Hoods are not to be used for chemical storage or waste
The ventilation is being obstructed, and cannot circulate

Identifying Hazards



Can you identify the hazard in this photo?

Identifying Hazards



There has to be a free and clear pathway to the showers and eyewashes

Identifying Hazards



Can you identify the hazard in this photo?

Identifying Hazards

Chemicals are not to be stored above eye level – especially liquids and corrosives



Evaluating Hazards

In order to determine an activity's level of risk, consider two factors:

1. The potential *severity* of the hazard – how significant are its consequences?
2. Likelihood of occurrence or exposure – what are the chances the hazard will occur?

A hazard with a high severity and also a high likelihood of occurrence is a high risk, and a hazard with low severity and a low probability of occurrence is a low risk

Evaluating Hazards

Severity: also known as a consequence

Catastrophic (4) – Death, permanent disability; system or facility loss; lasting public health or environmental impact

Severe (3) – Serious injury; temporary disability; subsystem loss or facility damage; temporary public health or environmental impact

Moderate (2)- Medical treatment; lost work days; minor facility damage; external reporting cleanup requirements

Minor (1) – First aid only; negligible or slight facility damage; routine cleanup

**If you do not know or are unsure of the consequence / severity of the identified hazard, professional advice should be obtained. You can also consult past records and relevant published literature on reputable government health websites.*

Evaluating Hazards

Likelihood of Occurrence and Exposure

Frequent – Likely to occur repeatedly

Probable – Likely to occur multiple but infrequent times

Occasional – likely to occur at some time

Remote – Possible, but not likely to occur

Improbable – Very unlikely; can reasonably assume it will not occur

Evaluating Hazards

Levels of Risk

- **Very high** – These risks are unacceptable. Substantial improvements in risk control measures are necessary so that the risk is reduced to a tolerable or acceptable level. The work activity should be halted until risk controls are implemented. If it is not possible to reduce the risk, the work should remain prohibited.
- **High** – Considerable efforts should always be made to reduce the risk. Resources might have to be allocated to additional control measures.
- **Medium** – Consideration should be as to whether the risks can be lowered, where applicable, to a tolerable level and preferably to an acceptable level, but the costs of additional risk reduction measures should be taken into account.
- **Low** – No additional controls are required unless they can be implemented at very low cost (in terms of time, money, and effort). Actions to further reduce these risks are assigned low priority.
- **Very Low** – These risks are considered acceptable. No further action is necessary other than to ensure that the controls are maintained.

All risk reduction measures should be implemented within a defined time period. Arrangements should be made to ensure that all controls are maintained, particularly if the risk levels are associated with extremely harmful consequences and very harmful consequences. Where the risk is associated with extremely harmful consequences, further assessment is necessary to increase confidence in the likelihood of harm.

Quantifying Risk

		Severity of Hazard			
		Catastrophic	Severe	Moderate	Minor
Likelihood of Occurrence	Frequent	Extreme	Extreme	High	Medium
	Probable	Extreme	Extreme	High	Medium
	Occasional	Extreme	High	High	Low
	Remote	High	Medium	Medium	Low
	Improbable	Medium	Low	Low	Minimal

Evaluating Hazards

Some examples:

- A fire in a building has the potential to seriously injure or kill people and destroy property, so the severity is extremely high (catastrophic) for all employees. A typical office worker has a very low probability of exposure (improbable to remote), and therefore has a low level of risk. On the other hand, a firefighter is very likely to be exposed to building fires, so has a very high level of risk. Additional control measures are necessary for the firefighter, but probably not for the office worker.
- The same office worker, however, has a very high likelihood of exposure to paper cuts, but the severity of that hazard is minor, so the level of risk is low.

Reducing Risk

The potential severity of a hazard can be reduced by implementing engineering controls (minimizing chemicals amounts, maximizing distance from a reaction, controlling the environment)

Likelihood of a hazard occurring can also be reduced using planning controls.

Policies and PPE cannot reduce the severity of a hazard, but they can reduce the likelihood of an occurrence and your exposure.

In the previous examples, building fire sprinklers can reduce the severity of the hazard by extinguishing a fire before it can reach cause serious injury or damage. Or, office workers can choose to wear gloves or finger cots when handling paper, reducing their potential exposure to paper cuts.

