

Conducting a Workplace Hazard Assessment
To Guide the Selection of Personal Protective Equipment (PPE)

[as required by the OSHA Personal Protective Equipment Standard CFR 1910.132(d)(2)]

<p>The purpose is:</p>	<p>To identify sources of hazards to workers so that steps to reduce or eliminate them can be taken before serious or fatal workplace injuries and illnesses occur.</p>
<p>Priority should go to the following types of jobs:</p>	<ul style="list-style-type: none"> • Jobs with the highest injury or illness rates • Jobs with the potential to cause severe or disabling injuries or illnesses, even if there is no history of previous accidents • Jobs in which one simple human error could lead to a severe accident or injury • Jobs that are new to your operation or have undergone changes in processes and procedures; and • Jobs complex enough to require written instructions
<p>How to get started:</p>	<ul style="list-style-type: none"> • Review your accident and illness history – what jobs seem to be involved most often? • Familiarize yourself with the common sources of workplace hazards that can lead to injuries and illness, such as: <ul style="list-style-type: none"> Motion Falling objects Sharp objects Rolling or pinching objects Electrical hazards Chemicals Harmful dust Light radiation High temperatures Layout of workplace <p style="text-align: center;"><i>(See attached OSHA list of Common Hazards and Descriptions)</i></p> <ul style="list-style-type: none"> • Talk with employees about the hazards they know exist in their current jobs
<p>Identifying the hazards:</p>	<ul style="list-style-type: none"> • Identify dangerous chemicals and products used in work tasks by looking at the Material Safety Data Sheets (MSDS). • Use a systematic method to identify the hazards associated with dangerous job tasks • Use the following worksheets to: <ul style="list-style-type: none"> – Rank the job tasks from most dangerous to least dangerous; – Identify what could go wrong, and; – Protect workers by changing the way the job is done or providing the right personal protective equipment.

Finding Solutions

Personal Protective Equipment is viewed as the least desirable way to prevent worker exposure. It is the last resort in worker protection. First try to:

Use a less hazardous chemical or material	Investigate safer alternatives to the chemical products currently in use.
“Engineer-out” the hazard	If you can physically change the machine or work environment to prevent employee exposure to the potential hazard, then you have eliminated the hazard with an engineering control. The more reliable or less likely a hazard control can be circumvented the better.
Control exposure by the way the work is done	Remove your employees from exposure to the potential hazard by changing the way they do their jobs.

Selecting the Right PPE

- Become familiar with the potential hazards, the type of equipment that is available and what it can do – like splash protection, impact protection, etc.
- Obtain information from a variety of vendors and ask to test equipment.
- Make sure that the PPE you are considering meets the requirements of OSHA’s Personal Protective Equipment Standard – most manufacturers and vendors can provide help.
- Select the protective equipment that ensures a level of protection greater than the minimum required to protect employees from hazards.
- Fit the user with the protective device and ensure that the right size is selected. Continued wearing of the device is more likely if it fits the wearer comfortably.
- Make workers aware of all warning labels for and limitations of their PPE.

Eye and Face Protection	<p>Click on the following OSHA publications for guidance in selecting the right personal protective equipment:</p> <ul style="list-style-type: none"> • Personal Protective Equipment U.S. Dept. of Labor, Occupational Safety & Health Administration. OSHA 3077 (Revised 1998) • Assessing the Need for Personal Protective Equipment: A Guide for Small Business Employers U.S. Dept. of Labor, Occupational Safety & Health Administration. OSHA 3077 (Revised 1998)
Head Protection	
Foot and Leg Protection	
Hand and Arm Protection	
Body Protection	
Hearing Protection	

Workplace Hazard Assessment
Worksheet 1

List the jobs and tasks involving potential hazards that could lead to worker injury or illness. Rank them from most dangerous to least dangerous.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

(Continue listing jobs and tasks on additional sheets if necessary.)

Use Worksheet 2 to describe the hazards and identify controls for the jobs or tasks listed above. Use a separate worksheet for each of the numbered items. Work on the most dangerous jobs and tasks first.

Workplace Hazard Assessment
Worksheet 2

Identifying the Hazards

Name of job or task: _____

Who is performing it?	
Where is it done?	
What is the task? (brief description)	
What can go wrong?	
What are the consequences?	
How does this situation happen?	

(OVER)

Workplace Hazard Assessment
Worksheet 2

Finding Solutions

<p>Could a less hazardous chemical or material be used?</p>	
<p>Could the machine or work environment be physically changed to prevent employee exposure to the hazard?</p>	
<p>Could employee exposure be eliminated or reduced by changing the way they do their jobs?</p>	

If these measures can't completely protect the worker, what personal protective equipment is necessary?

OSHA list of Common Hazards and Descriptions

HAZARDS	HAZARD DESCRIPTIONS
Chemical (Toxic)	A chemical that exposes a person by absorption through the skin, inhalation, or through the bloodstream that causes illness, disease, or death. The amount of chemical exposure is critical in determining hazardous effects. Check Material Safety Data Sheets (MSDS), and/or OSHA 1910.1000 for chemical hazard information.
Chemical (Flammable)	A chemical that, when exposed to a heat ignition source, results in combustion. Typically, the lower a chemical's flash point and boiling point, the more flammable the chemical. Check MSDS for flammability information.
Chemical (Corrosive)	A chemical that, when it comes into contact with skin, metal, or other materials, damages the materials. Acids and bases are examples of corrosives.
Explosion (Chemical Reaction)	Self-explanatory.
Explosion (Over Pressurization)	Sudden and violent release of a large amount of gas/energy due to a significant pressure difference such as rupture in a boiler or compressed gas cylinder.
Electrical (Shock/Short Circuit)	Contact with exposed conductors or a device that is incorrectly or inadvertently grounded, such as when a metal ladder comes into contact with power lines. 60Hz alternating current (common house current) is very dangerous because it can stop the heart.
Electrical (Fire)	Use of electrical power that results in electrical overheating or arcing to the point of combustion or ignition of flammables, or electrical component damage.
Electrical (Static/ESD)	The moving or rubbing of wool, nylon, other synthetic fibers, and even flowing liquids can generate static electricity. This creates an excess or deficiency of electrons on the surface of material that discharges (spark) to the ground resulting in the ignition of flammables or damage to electronics or the body's nervous system.
Electrical (Loss of Power)	Safety-critical equipment failure as a result of loss of power.
Ergonomics (Strain)	Damage of tissue due to over exertion (sprains and strains) or repetitive motion.
Ergonomics (Human Error)	A system design, procedure, or equipment that is error-provocative. A switch goes up to turn something off.
Excavation (Collapse)	Soil collapse in a trench or excavation as a result of improper or inadequate shoring. Soil type is critical in determining the hazard likelihood.

Fall (Slip, Trip)	Conditions that result in falls (impacts) from height or traditional walking surfaces such as slippery floors, poor housekeeping, uneven walking surfaces, exposed ledges, etc.
Fire/Heat	Temperatures that can cause burns to the skin or damage to other organs. Fires require a heat source, fuel, and oxygen.
Mechanical/Vibration (Chaffing/Fatigue)	Vibration that can cause damage to nerve endings, or material fatigue that results in a safety-critical failure. Examples are abraded slings and ropes, weakened hoses and belts.
Mechanical Failure	Self-explanatory; typically occurs when devices exceed designed capacity or are inadequately maintained.
Mechanical	Skin, muscle, or body part exposed to crushing, caught-between, cutting, tearing, shearing items or equipment.
Noise	Noise levels (>85 dBA 8-hr TWA) that result in hearing damage or inability to communicate safety-critical information.
Radiation (Ionizing)	Alpha, Beta, Gamma, neutral particles, and X-rays that cause injury (tissue damage) by ionization of cellular components.
Radiation (Non-Ionizing)	Ultraviolet, visible light, infrared, and microwaves that cause injury to tissue by thermal or photochemical means.
Struck By (Mass Acceleration)	Accelerated mass that strikes the body causing injury or death. Examples are falling objects and projectiles.
Struck Against	Injury to a body part as a result of coming into contact of a surface in which action was initiated by the person. An example is when a screwdriver slips.
Temperature Extreme (Heat/Cold)	Temperatures that result in heat stress, exhaustion, or metabolic slow down such as hypothermia.
Visibility	Lack of lighting or obstructed vision that results in an error or other hazard.
Weather Phenomena (Snow/Rain/Wind/Ice)	Self-explanatory.