



# Think Safety!

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## Risk Assessment And Guarding Against Accidents

It can be easy to take safety for granted – that is until an accident occurs, one that leaves you broken, burned, blinded or worse – dead.

We are going to discuss some of the factors that can lead to accidents, how to evaluate their likelihood of occurrence, and their potential severity.

We will outline safety precautions that can protect your

limbs, eyes, skin, back, and the rest of your body. Safety is not an accident. It is the product of a well thought out routine.

You should also protect yourself against incidents that may occur. Taking the time to put on the proper personal protection equipment (PPE) can seem monotonous but consider what that equipment is protecting.



### Risk Assessment:

Risk assessment is the process of evaluating work place risks to health and safety during a potential work place hazard.

The purpose of performing

a risk assessment is to allow for the effective management of safety precautions either through protection, training or implementation measures.

Once the risks are identi-

fied, the likelihood of their occurrence and severity must be determined along with the proper preventive actions.

A proper risk assessment will:

- Create awareness of hazards and risks.
- Identify who may be at risk (employees, cleaners, visitors, contractors or the public.)
- Determine if existing control measures are adequate or if more substantial policies should be put in place.
- Prevent injuries or illnesses when done at the design or planning stage.
- Prioritize hazards and control measures.

- Review all available health and safety information about possible hazards including MSDS, manufacturer's literature, information from reputable organizations, results of testing, etc.
- Monitor and evaluate to confirm the risk is controlled.
- Include all documents detailing the process.
- Include routine activities such as maintenance and repair as well as non-routine activities.
- Take into consideration the age and experience

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# Risk Assessment:

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of those performing the tasks being assessed.

- Consider unusual circumstances that could impact risk such as power outages or extreme weather conditions.
- Include information pertaining to near-miss situations.

A completed risk assessment may show how to eliminate some risks but others cannot be eliminated completely. For those necessary risks, the control measures identified during the process should aid in minimizing the risk to the lowest possible severity thus creating a safer workplace environment.

It is important that a compe-

tent team of individuals who have a good understanding of the workplace perform the assessment. The team should be comprised of staff and supervisors who work with the processes being assessed, as they are the most familiar with the process. However, the team also should include others who are not as close to routine actions and can offer a “fresh” perspective.

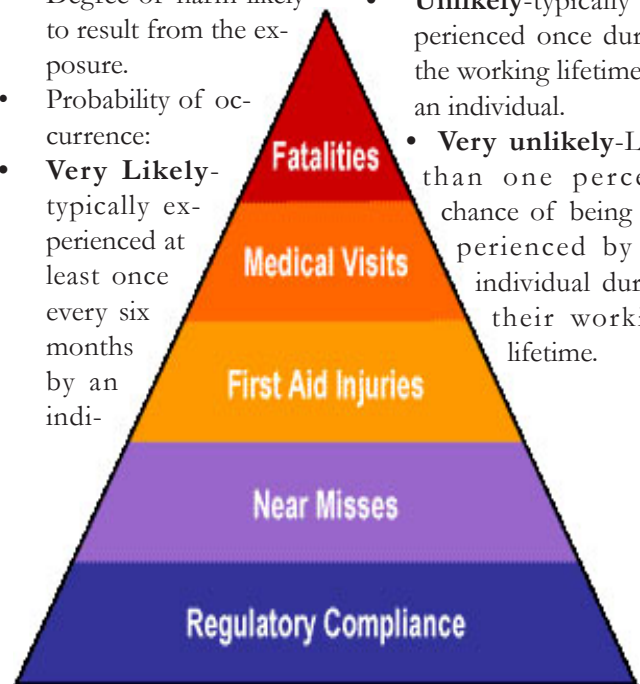
While performing the assessment, take into consideration potential situations as well as the current state of the workplace.

Once all of the potential hazards are identified, they should be assigned a priority for your action list. The following factors play an important role in that ranking:

- Percentage of workforce exposed.
- Frequency of Exposure.
- Degree of harm likely to result from the exposure.
- Probability of occurrence:
- **Very Likely**-typically experienced at least once every six months by an indi-

vidual.

- **Likely**-typically experienced once every five years by an individual.
- **Unlikely**-typically experienced once during the working lifetime of an individual.
- **Very unlikely**-Less than one percent chance of being experienced by an individual during their working lifetime.



# PPE:



There are several dangers associated with the transfer of propane and personal protective equipment (PPE) is a very important tool in preventing injury.

Your skin and eyes are vulnerable to the cold, the chemical and flammable properties of propane and should be protected whenever there is a potential exposure.

Eye protection may be required when performing some operations. Propane can inflict mechanical damage to the eye with the

potential pressure at which it can be expelled as well as its temperature. At -44 degrees Fahrenheit, imagine what that can do if it contacts the eye directly. A face shield can protect the eyes and face from direct contact from propane. Safety goggles can also be effective at protecting the eyes, if not the full face.

In most cases, your hands have the most potential for exposure to the freezing effect of propane during a transfer since you will be making and breaking connections.

Gloves should be worn during this process. Exposure of body tissues to liquid propane when installing transfer and

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## PPE:

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withdrawal valves can result in frostbite or freeze burn. The gloves should be of a propane resistant material. Cloth gloves can pose a bigger risk than help. Propane saturated cloth gloves can adhere to the skin and cause extreme damage to the skin tissue. It is

also important that the gloves fit properly. If they are too loose, propane may be able to get inside them. If they are too tight, it may be difficult to remove them quickly if it becomes necessary. Longer gloves may also prevent propane from finding its way inside the gloves.

Don't forget to protect your

feet. The evacuation process could involve the shifting of heavy containers or handling heavy equipment. Steel-toed shoes will provide the level of protection necessary to prevent crushed toes if a cylinder should end up on the toes.

Clothing is an important protection consideration as well.

Natural fibers such as cotton or wool may provide more protection in the event of a fire than non-flame retardant synthetic fibers. Long sleeved shirts and jackets are better than short sleeve shirts. Some work clothing manufacturers identify garments by labels that are unsuitable for working around flammables.

## Proper Work Mechanics:

Many workplace injuries occur during routine activities. Proper body mechanics can prevent many debilitating injuries.

As simple a thing as standing or walking improperly can lead to pain. When standing, keep your feet flat on the floor separated about 12 inches apart. Keep your back straight when standing or walking.

Of course lifting leads to many injuries. When lifting an object, your feet should be apart in a standing position with your back straight. Lower your body to get close to the object. Bend at your hips and knees not at the waist. When turning, move your feet not your back.

When lifting, bend your

knees with your back straight. Lift the object using your arm and leg muscles. Do not use your back muscles. Do not lift an object too heavy for you. After lifting the object, carry it close to your body for support.

When pushing or pulling an object, use your weight for leverage with your feet apart in the standing position and your back straight.

Even sitting behind a desk presents its own pain points. Make sure to use a chair that properly supports your back. Sit in your chair with your back straight. Stand up periodically to change positions. If using a computer monitor, it should be at the same level as your eyes. Use a headset or phone speaker if you use the phone



often.

Of course staying in shape and getting plenty of sleep help reduce fatigue related injuries. Regular exercise strengthens

the body and increases flexibility. As little as 20-30 minutes of exercise at least three times per week can have a significant positive effect.

## Slips, Trips and Falls:

All it takes is a momentary lapse of attention to lead to a slip, trip or fall and a potential injury. It could be stumble down a stairway, a trip over an uneven surface or a slip on ice.

According to the U.S. Department of Labor, these type of accidents make up the majority of workplace accidents.

They account for:

15 percent of all accidental deaths per year, the second leading cause behind motor vehicles

About 25 percent of all reported injury claims per fiscal year

More than 95 million lost workdays per year – about 65

percent of all work days lost

Most slips and trips occur due to a loss of traction between the shoe and the walking surface or contact with a movable object such as:

- Wet or greasy floors
- Dry floors with wood dust or powder
- Uneven walking surfaces

Polished or freshly waxed floors

Loose flooring, carpeting or mats

Transition from one floor type to another

Missing or uneven floor tiles and/or bricks

Damaged or irregular steps,

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## Slips, Trips and Falls:

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no handrails

Sloped walking surfaces

Shoes with wet, muddy, greasy or oily soles

Clutter

Electrical cords or cables

Open desk or file cabinet drawers

Damaged ladder steps

Ramps and gangplanks without skid-resistant surfaces

Metal surfaces – dock plates, construction plates

Weather hazards – rain, sleet, ice, snow, hail, frost

Wet leaves or pine needles

Slip and fall accidents can

be prevented with a few precautionary measures such as creating good housekeeping measures. Many of the slip and fall occurrences can be linked directly to poor housekeeping. Develop a housekeeping program that is routine rather than the exception. Plan ahead and assign specific responsibilities when necessary.

Frequently monitor the walking surfaces of parking lots, sidewalks, and floors in general for potential problems. Weather can effect indoor surfaces as well as the outdoor surfaces. For example, rain or snow can lead to wet surfaces

indoors as outdoor workers come inside. Use moisture-absorbent, non-skid mats with beveled edges in entrance areas. Clean up spills and moisture immediately.

Avoid the creation of obstacles in walking areas. Clutter can be very dangerous. Avoid stringing cords, cables or hoses across hallways or frequently traveled areas. Cabinet and file drawers should be closed when it isn't necessary to be open. Look for slip and trip hazards.

Poor lighting can also lead to accidents. Pay particular attention to walkways, staircases, ramps and dock areas. It is important to make sure that any area that has a change in surface height or type be sufficiently illuminated. Keep

light switches clear of debris and accessible.

Of course, ultimately, the type of footwear worn can play a huge part in preventing slips. The soles should be skid-resistant and laces should always be tied.

All of these things can be accomplished and it still may come down to human behavior. Many of the potential obstacles mentioned above can be overcome with a focus of attention. Likewise, the chance of an accident can be greatly increased due to inattentiveness. Being in a hurry, using a cell phone, carrying materials that obstruct your vision, wearing sunglasses in lowlight areas, and many other factors can become contributors to accidents.

Articles in this publication are for information only. Nothing in this publication is to be construed as setting standards or requirements. Please consult with appropriate regulatory and rulemaking bodies for all legal requirements.



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