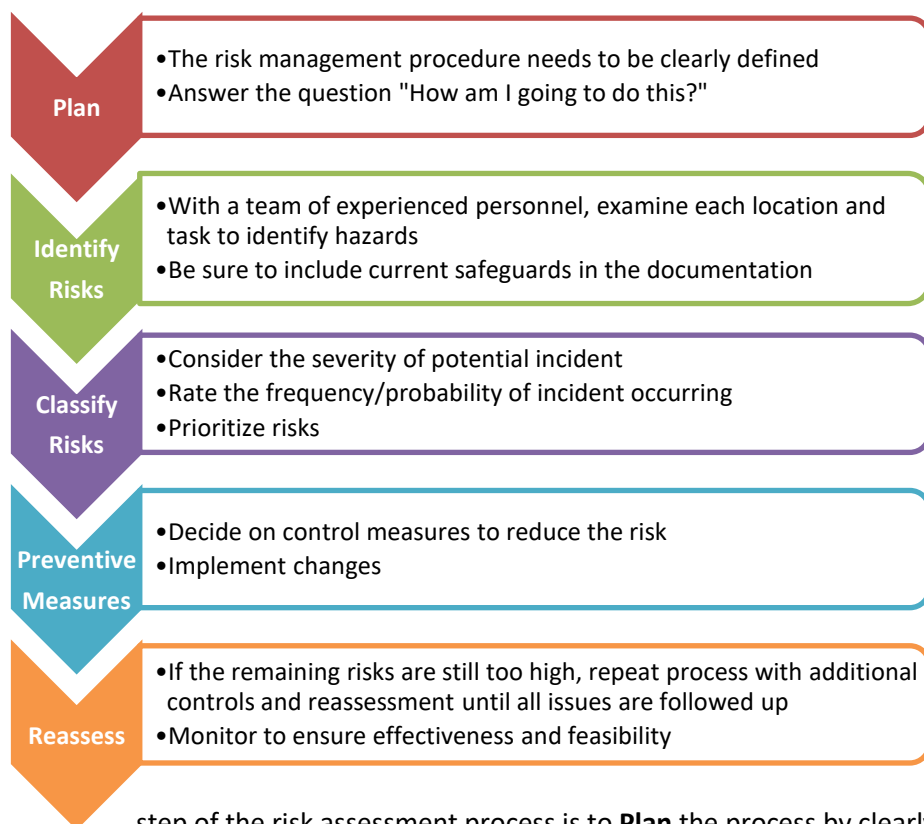


Personal Protective Equipment (PPE) is defined by the CSA as “any thing designed to be worn or held by an individual for protection against one or more health and safety hazards.” PPE includes protective footwear, hard hats, safety apparel, hearing protection, eye and face protectors and respirators. PPE can decrease risk of injury by:

- Increasing the ability to avoid harm
- Controlling inadvertent exposure to harm
- Decreasing the severity of harm

## How do we defend our Personal Protective Equipment (PPE) choices?

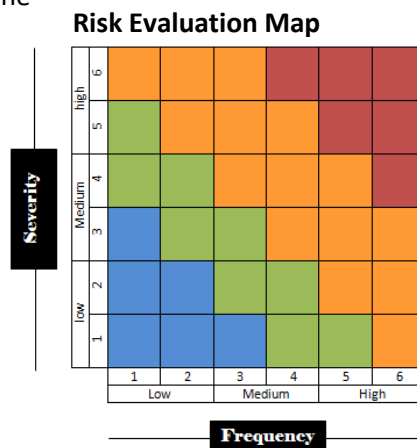
Some PPE is specified in regulation, such as using fall protection equipment when working at heights. However, in most cases, it is the responsibility of the Employer to determine the requirements for the PPE that their employees should use. Employers may be required to defend their PPE choices to Ministry inspectors. A common and effective way of approaching this is by means of a **Risk Assessment**. This is a documented process that is used to identify, analyze and evaluate risks to eliminate, reduce or control the hazards including the use of PPE. Risk assessments can be broken up into 5 steps:



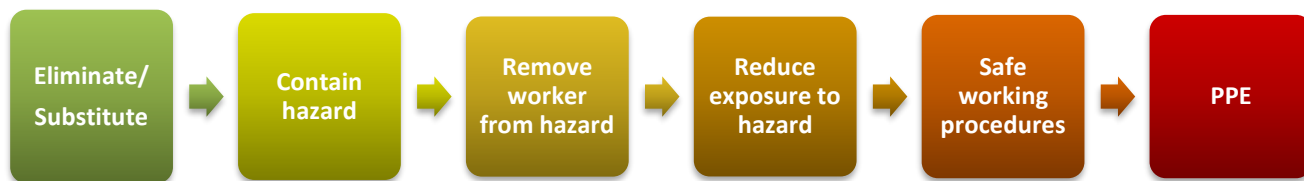
The first step of the risk assessment process is to **Plan** the process by clearly defining how it is to be carried out. This involves identifying scope and objectives, the basis upon which the risks will be evaluated, the framework, developing a plan of analysis, and a plan of implementation.

**Identify Risks** is the second step of the risk assessment process and involves documenting all hazards and current safeguards in each area and task. This is a team exercise that should be facilitated by someone who understands the risk assessment process. An experienced operator, a maintenance person, a safety committee representative, and a technical resource are normally preferred team members for this part of the process. This group approach ensures that many points of view are considered to capture all risks.

The third step is to **Classify Risks**. Once all the hazards are documented, it is important to classify risks so that they can be prioritized later. The key to doing this is looking at the severity of the potential incident and the frequency or probability of the incident occurring. This can be done either *qualitatively* by marking severity and probability from “low to high” or by *quantitatively*, using methods such as air quality testing and gathering data about the frequency of related accidents over the past year. Either way, the process needs to be well documented and the terms explained (what does “medium severity” represent?). This will help ensure consistency of the process as it is applied to different situations, or re-evaluated over time. By using this system, hazards will be addressed in order, starting with the highest risk as the highest priority. This risk evaluation map demonstrates an example of how to prioritize risks.



The fourth step, taking **Preventative Measures**, refers to identifying and implementing control measures to reduce the risk. There are many control strategies that can address and reduce the risk, including engineering such as machine guarding, and administrative measures, like safe working procedures. Preventive measures may also include emergency equipment and procedures, such as eye wash stations. The *Hierarchy of Control*, seen below, demonstrates the ideal approach to risk reduction:



The final step of a risk assessment is to **Reassess** the risks with the implemented controls. This is to ensure that the controls are working properly and reducing the risk to an acceptable level. This will also help to identify any new risks that may have come up with controls. For example, wearing hearing protection may change a person’s ability to hear a fire alarm in certain areas. It is important to monitor all controls over a period of time to ensure their effectiveness and feasibility.

Risk assessments are very versatile, and may be used to identify and assess many types of hazards, including chemical, biological, mechanical, and thermal. The result is a document identifying task and area hazards, risk levels, preventions, and control measures implemented. This effectively justifies PPE choices and also helps demonstrate due diligence. Prevention and Regulatory Solutions Ltd. has extensive experience in facilitating and implementing risk assessment and hazard control strategies. Please contact us for more information at [info@pandrs.com](mailto:info@pandrs.com).

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