

# Managing Hazards

## Three steps to identifying, assessing and controlling hazards



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**A hazard is a situation in the workplace that has the potential to harm the health and safety of people or to damage plant and equipment. The situation could involve a task, chemical or equipment used. Hazard management is a continuous process that is used to improve the health and safety of all workplaces.**

Hazard management is essentially a problem-solving process aimed at defining problems (identifying hazards), gathering information about them (assessing the risks) and solving them (controlling the risks).

Where a control has been used to address an identified hazard, this should be reviewed by checking the effectiveness of the control (evaluation). The whole hazard management process should also be reviewed after a period of time or when something changes.

### Step 1: identifying hazards

The first step in the risk management process is to identify any hazards in the workplace.

To identify hazards, you may:

- walk around your workplace and look at what could cause harm
- ask your workers or their health and safety representatives what they think – they may have noticed things that are not immediately obvious to you
- check manufacturers' instructions or safety data sheets for chemicals or equipment
- be aware of any workplace incidents or 'near misses'.

Examples of hazards include unsafe manual handling tasks, unsafe use of chemicals and the use of electrical plant in wet areas.

Remember to think about long-term hazards, such as high noise levels or prolonged exposure to a harmful substance, as well as immediate safety hazards.

### Step 2: assessing the risks

The second step is to assess the level of risk associated with each hazard. This includes considering:

- the severity of any injury or illness that could occur – for example, establish whether it is a small isolated hazard that could result in a very minor injury, or if it is a significant hazard that could have wide ranging and severe effects
- the likelihood or chance that someone will suffer an illness or injury – for example, consider the number of people who could be exposed to the hazard.

A risk assessment will assist in determining the control measure that should be implemented by:

- identifying which workers are at risk of exposure to a hazard
- determining what sources and processes are causing that risk
- identifying if and what kind of control measures should be implemented
- checking the effectiveness of existing control measures.

### Step 3: controlling the risks

The third step is to control any hazards. Some control measures are more effective than others. Control measures can be ranked from the highest level of protection and reliability to the lowest.

This ranking is known as the hierarchy of control.

You must work through the hierarchy of control in the following order. Implementing risk controls that are as high in the order as possible is best.

1. **Eliminate** – remove the hazard completely from the workplace. This is the most effective control measure and must always be considered before anything else.
2. **Substitute** – if the hazard cannot be eliminated, substitute or replace the hazard with a less hazardous work practice.
3. **Isolate** – as much as possible, isolate the hazard or hazardous work practice from people.
4. **Engineering controls** – these are physical control measures i.e. adapt tools or equipment to minimise the risk.
5. **Administrative controls** – these should only be considered when other higher order control measures are not practicable. These are work methods or procedures that are designed to minimise the exposure to a hazard e.g. implementing a training program, using permit systems.
6. **Personal Protective Equipment (PPE)** – this should be the last option. PPE relies on the proper fit and use of the PPE and does nothing to change the hazard itself. It therefore requires thorough training and effective supervision to ensure compliance and effectiveness.

In many cases a combination of control measures might need to be used to control a risk.

When selecting and implementing a combination of control measures it is important to consider whether any new risks might be introduced as a result and, if so, whether the combination of the control measures should be reviewed.

## Reviewing control measures

Control measures that are put in place to protect health and safety should be regularly reviewed to make sure that they remain effective. A review should occur on a regular basis and can be done by following the same steps as the initial hazard identification process.

Common methods of review include workplace inspection, consultation, testing and analysing records and data.

Reviewing the control measures also involves considering whether a higher order control measure is now reasonably practicable.