Safe Respirator Use

What’s at Stake?

If a respirator is required for a job you’re doing it means there is a risk of inhaling contaminants such as harmful dust or gas. Often the contaminant is difficult or impossible to see. For this reason, it is essential that any respirator is fitted and used correctly to ensure you are fully protected.

What’s the Danger?

Some airborne contaminants can cause nerve damage, burns to the skin, or irritation to the eyes, or respiratory system. Other contaminants are so toxic that inhaling them, or having them be absorbed through the skin, can lead to immediate death.

In other cases, inhaling contaminants over a prolonged period causes no immediate symptoms but eventually results in a chronic breathing illness such as asthma or a disease such as cancer.

A respirator must be appropriate for the work being done and the hazards of the environment. It must work and fit correctly. Using the wrong type of respirator or one that doesn’t fit, means there’s the chance you could breathe in these harmful airborne contaminants

How to Protect Yourself

1. Be prepared Know the risks in your work environment.

   - Use the safety data sheet (SDS) for extra guidance on a respiratory hazard.
   - Before entering a space that requires the use of a respirator, check:
     - What the respiratory hazards are and what safety controls are in place.
     - The respirator you are using is suitable for the hazard

2. Breathe safe air

   - There are two major categories of respirators. Supplied-air respirators and air purifying respirators.
   - Supplied-air respirators SARs, include airline respirators, self-contained breathing apparatus or SCBA and emergency escape respirators.
   - Protective suits that totally encapsulate the wearer’s body and incorporate a life-support system are used are also included in this category.

3. Keep the bits out

- Air-purifying respirators (APRs) include:
    - particulate respirators, such as dust fume, and mist respirators or masks.
    - chemical cartridge respirators which combine chemical cartridges and a dust filter;
    - gas masks; and y powered air-purifying respirators (PAPRs)

4. Have the correct barrier

- Filters are made of material that traps particles, so you do not breathe them in.
    - Check and change them frequently to make sure they don’t get clogged up with particulates.
- Cartridges contain a material that absorbs gases and vapors.
    - Check and change them frequently as they become full or saturated with the contaminant.
- Check the barrier is suitable for oily environments.
    - **N** series means it is not resistant to oil and should only be used if no oil particles are present.
    - **R** series are resistant to oil and can be used in an oily environment but only for a limited time, such as one shift.
    - **P** series, or oil-proof may be used in any atmosphere but carry out filter checks and changes per manufacturer’s instructions.

5. Make it fit

- Ensure there is a good seal between the skin and the respirator mask. Avoid:
    - beards, long sideburns, or even a two-day stubble;
    - wearing eyeglasses.
- In some cases, facial scars or an acne problem can prevent a proper seal.
- Have the right type for the hazard
    - A mouth-bit respirator fits in the mouth and comes with a nose clip to hold nostrils closed and is used for escape purposes only.
    - A quarter-mask covers the nose and mouth; whereas a
    - Half-face mask covers the face from the nose to below the chin.
    - A full facepiece covers the face from above the eyes to below the chin and protects the eyes from exposure to irritating chemicals.
- Do a fit test
    - In a negative fit test, the facepiece should collapse or “squish in” slightly on your face.
    - In a positive fit test, the respirator should expand or “puff out” slightly

Final Word

Breathing in airborne contaminants can cause breathing problems and lung problems in both the long and short term. The more often a worker is exposed to these contaminants, the greater the risk of them developing a long-term illness. Respirators are very effective at removing the risk of exposure, but you must have the right kind and use it correctly.