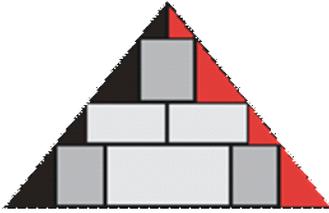


# PLEA HSE Awareness

## **Respiratory Protection**





**You need respiratory protection if the air you breathe could hurt you.** It is important to remember that before you can choose a respirator, you must understand the danger that is present.

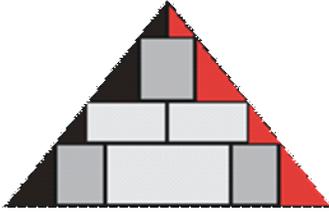
## **What Must Occur Before You Use a Respirator?**

**Training** –You will learn how to put it on and take it off, check the seals, inspect it, clean it and store it.

**Fit Test** - A fit test will be performed on each kind of respirator you will need to use.

If you are not able to get a proper fit, the respirator might allow contaminants to slip in through the cracks when you are wearing your respirator. Remember, beards, facial hair and glasses can interfere with a **good face piece seal**.

**Medical Evaluation** – This shall be done to determine if you have a physical condition that will prevent you from safely wearing a respirator.



## Different Types of Air Contaminants

Air may be contaminated with:

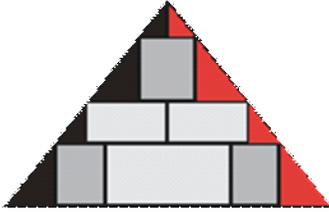
- **particulates or dusts**
- **organic mists or vapours**

*OR*

- It could be that the air is **oxygen deficient**

You must know which of these dangers is present before you can choose the right respirator. Each hazard requires a different type of respirator.

Respirators will **NOT** protect toxins from being absorbed through the skin.



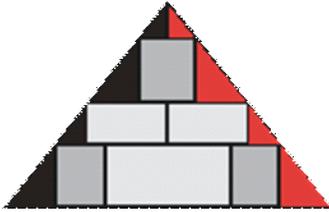
## There are two basic families of breathing protection:

### 1. AIR-SUPPLIED RESPIRATORS:

**a) HOSE LINE AIR-SUPPLIED RESPIRATOR** – This type of respirator uses supplied air that may come from an air compressor that is located where the air is known to be safe or from a bank of compressed air bottles. The air is sent to the respirator face piece through a hose.

**WARNING**: This type of unit must **not** be used if the air is Immediately Dangerous to Life and Health (IDLH).

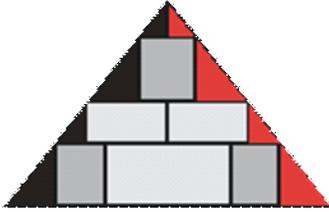




**b) SELF-CONTAINED BREATHING APPARATUS (SCBA)** - This is another type of supplied air. This type of respirator uses a tank of air that you carry with you.

A self-contained breathing unit (SCBA) **MUST** be used if the conditions of the air are **not known** OR where the air **is Immediately Dangerous to Life and Health (IDLH)**. Different SCBA's may last between 5 minutes to 45 minutes.

This type of respirator can be used in an oxygen deficient atmosphere (less than 19.5%).



## **2. AIR-PURIFYING RESPIRATOR:**

This type of respirator uses filters, canisters or cartridges that can remove specific contaminants from the air before it reaches your lungs. Air-Purifying Respirator Cartridges are designed to absorb different contaminant types and concentrations in the air.

Examples: Mechanical-Filter Mask, Chemical Cartridge Mask and Gas Mask.

Respirator cartridges are identified through colour coding.

*They must never be used when the air quality is not known and it could be Immediately Dangerous to Life and Health.*