

PPE Program

- Hazard Assessment
- Medical Monitoring
- Respiratory Program
- Equipment Selection and Use
- Training
- Inspection
- Maintenance
- Storage



PPE Safety Issues

- Personal use issues
 - Facial hair
 - Eyeglasses and contacts
- Physical condition
- Environmental condition
- Psychological condition
- Task



Heat effects in PPE

- Sudden, rapid rise in body temperature, leading to collapse (victim unaware, often fatal)
- Steady loss of body fluid (one to two litres per hour not uncommon)
- Slow insidious loss of performance
- Recovery difficult in contaminated environment
- Adequate rate of drinking not possible



Respiratory Protection

- Air purifying
 - Air purifying respirators (APR)
 - Powered air purifying respirators (PAPR)
- Air supplying
 - Self contained breathing apparatus (SCBA)
 - Supplied air respirators (SAR)



Air purifying respirators are not for:

- Immediately Dangerous to Life or Health (IDLH) or unknown atmospheres
- Use in atmospheres with oxygen levels less than 19.5% or greater than 23.5%
- Flammable or explosive atmospheres
- Gases with poor warning properties, or gases that generate heat in filter cartridge
- Unknown atmospheres



Level A Limitations

- Bulky
- Loss of dexterity
- Very hot
- Often poor visibility
- Communications difficult
- Requires SCBA
- Limited work period



Level B Limitations

- Bulky
- Limited mobility and dexterity
- Hot
- Weight of SCBA
- Limited work period
- Communications difficult



Level C Limitations

- Cannot be used in;
 - **IDLH atmospheres**
 - **Unknown atmospheres**
 - **Flammable atmospheres**
 - **Explosive atmospheres**
 - **Oxygen level < 19.5 %**
- Often suit materials and seams are not mechanically strong
- Negative pressure masks may allow contaminants to enter mask

