

# PROPER USE OF RESPIRATORS IN MINES AND MINING PLANTS

Protect yourself from occupational lung disease

## Common contaminants in mines and mining plants that can affect your breathing

1. Particulates - silica, metal dusts, diesel
2. Organic vapours
3. Gases - ammonia and sulphur dioxide

## Health Effects from Exposure

### Top short-term health effects

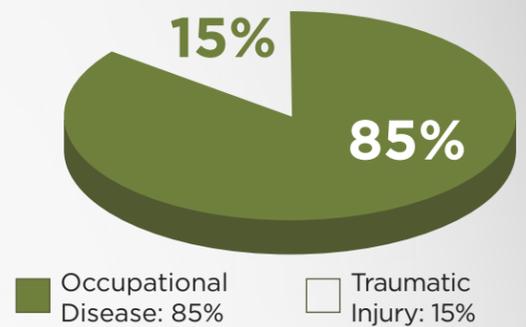
1. Pneumonia
2. Respiratory irritation
3. Metal fume fever

### Top long-term health effects

1. Silicosis
2. Lung cancer
3. Respiratory illnesses

## Ontario Mining Sector

WSIB Allowed Fatal Claims Registered between: 2005 to 2016



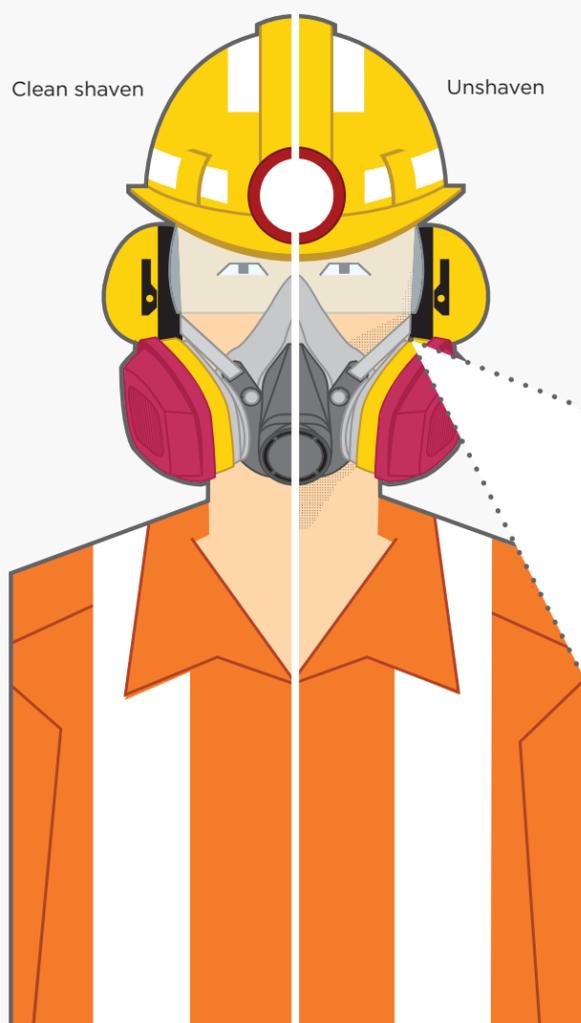
Source: WSIB EIW Claims Cost Analysis March 2017 Snapshot

Air-purifying respirators are commonly worn in mines and mining plants. These respirators are hazard-specific and use cartridges to protect against specific contaminants. Based on a risk assessment, when other controls are not available, an APR should be selected by a competent individual in consultation with the Joint Health and Safety Committee or a worker safety representative.

## Respirator Checklist

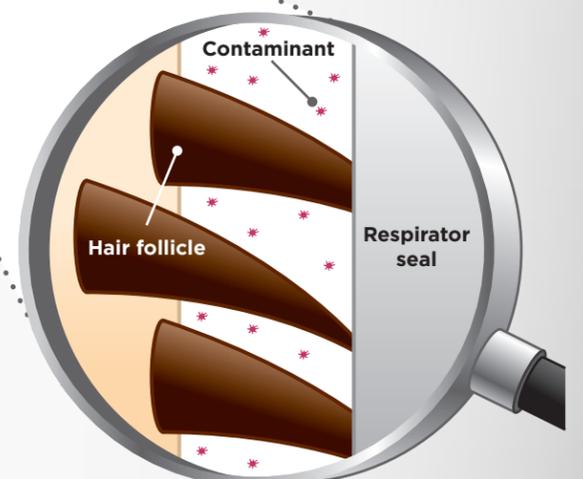
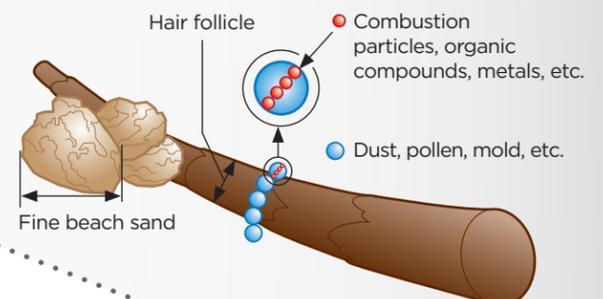
-  **Red light:**
  1. Use the NIOSH-approved mask selected for your work environment
  2. Fully trained on use, care, cleaning, and maintenance according to manufacturer instructions
  3. Get fit tested at least every two years
-  **Yellow light:**
  1. Inspect your mask
  2. You must be clean shaven
  3. Choose the proper cartridges for your work environment
-  **Green light:**
  1. Install proper cartridges
  2. Properly position mask and straps
  3. Conduct positive and negative pressure test to ensure proper seal

Ready to go!



Workers must be clean shaven for respirators to protect against contaminants. **Even light stubble can compromise the respirator seal.**

Contaminants are smaller than you think:

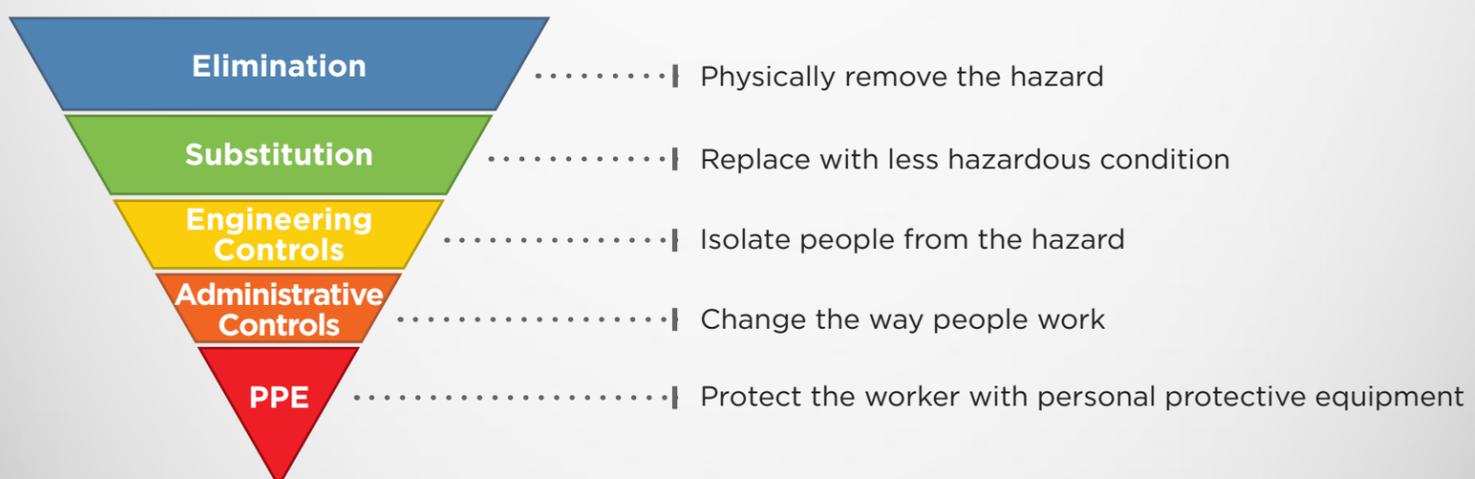


## Hierarchy of Controls

Most effective



Least effective



Apply the most effective control when possible. Personal protection equipment is the last line of defense. APRs do not protect against oxygen deficiency or certain gases like carbon monoxide.