General Respirator Protection Training program

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Respiratory Protection

• Why respirator is necessary and how to properly fit, use, and maintain
• Limits and capabilities of respirators
• how to use effectively in emergency situations
• How to inspect, wear, remove, check seals of respirator
• maintenance and storage of respirators
• Recognize medical signs or symptoms that may limit effective use
Respiratory Protection

• Terms
• P.E.L- permissible exposure limit
• S.T.E.L- Short Term Exposure limit
  – P.P.M- parts per million
  – mg/cubic meter - milligram per cubic meter
Found on MSDS.
Respiratory Protection

Terms (continued)

• **IDLH**- Immediately dangerous to life and health- \(<19.5\%\ or\ >23\%\ Oxygen\), **DO NOT ENTER**

• Asphyxiant-chemical or physical

• Vapor Density- weight of vapor when compared to air. \(>1\) heavier than air
Respiratory Protection

Terms (continued)

• **Service Life** - period of time that the cartridge or filter element provide protection
Respiratory Protection

• 1. Identify the Hazard
  – A. particulate?
  – B. vapor?
  – C. fume?
  – D. air supply?
Respiratory Protection

2. Select the proper respirator
   - A. Full face- provides eye and face protection
   - B. Half face- more comfortable, less protection of eyes
Respiratory Protection

• 3. Select the correct cartridge
  – a. particulate-high efficiency?
  – b. vapors- acid gasses, organic vapor, etc.
  – c. Fume protection

  – note: cartridges do not supply breathing air, they filter the air to make it breathable.
Respiratory Protection

• Physical capability
  – a. pulmonary function
  – b. heart problems
  – c. ear problems

  – Questionnaire needs to be completed by employee and reviewed by medical personnel
Respiratory Protection

• 5. Fitting and sealing
  • facial seal
  • mask condition
  • testing prior to each use
Respiratory Protection

Cleaning/Storage(personal respirators)

• Remove cartridges
• wash with warm soapy water
• be careful in replacing inhalation and exhalation valves
• Rinse in clean water then dry with cloth or air dry in clean room
• Store in plastic container without distorting mask
Respiratory Inspection

Cartridge Gasket
Respirator Inspection

Inhalation valve and seat:
1. In Place
2. Pliable
3. Clean seat

Exhalation valve:
1. In Place
2. Pliable
3. Clean seat
Respirator Inspection

**Straps**: all are in place and are not cracked, broken, and pliable.

**Face-piece**: not cracked, broken, and remains flexible.
Respirator assembly

Face-piece seal is not cracked, and is clean. Use NIOSH approved cartridges of the same model as respirator.
Respiratory Protection

Cleaning/Storage(personal respirators)

- Remove cartridges
- Wash with warm soapy water
- Rinse in clean water then rinse in sanitizer
- Dry with cloth or air dry in clean room
- Be careful in replacing inhalation and exhalation valves
- Store in plastic container without distorting mask