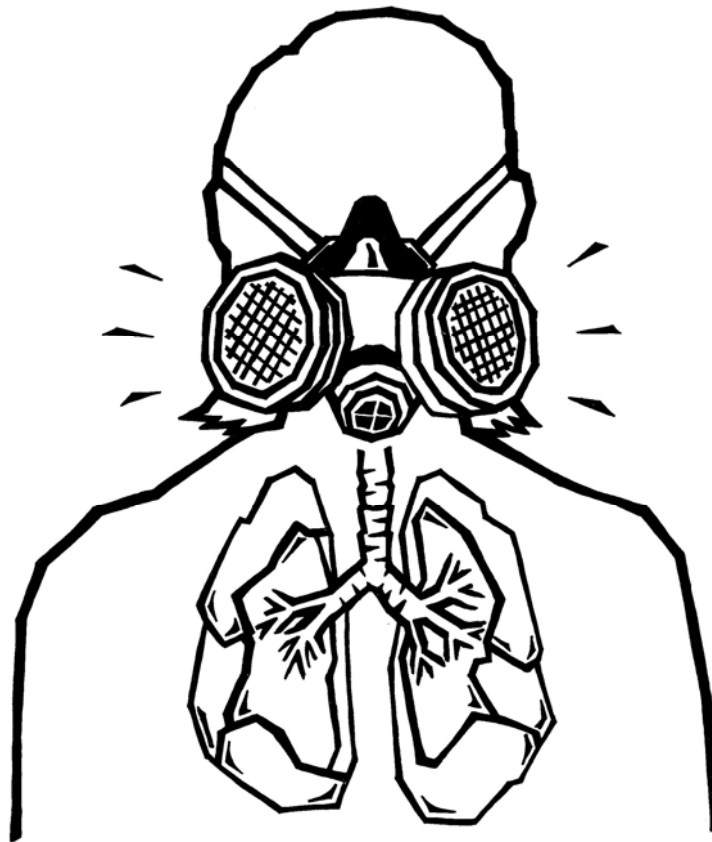


RESPIRATORY PROTECTION



This education program provides a guideline for proper use of respiratory protection. It is intended to give contractors and workers practical information relating to the use of respirators.

This education program contains general information. For specific regulatory requirements, please consult the appropriate Workplace Safety Health Act & Regulation concerning safe use of respiratory protection or the Workplace Safety and Health Act, and the Canadian Safety Association Standards (CSA).

PROPER RESPIRATORY PROTECTION IS ONE OF THE FUNDAMENTAL REQUIREMENTS WHEN DEALING WITH HAZARDOUS CHEMICALS.

IT'S THE LAW!

WORKPLACE SAFETY HEALTH ACT & REGULATION 6.15(1) (2)

6.15(1) An employer must ensure that respiratory protective equipment provided to a worker is:

(a) appropriate for the risk to which the worker is or may be exposed, as determined by the employer;

(b) selected, used and maintained in accordance with CAN/CSA-Z94.4-02, *Selection, Use, and Care of Respirators*;

(c) of proper size, and that it makes an effective seal to the facial skin of the worker where a tight fit is essential to its proper functioning;

6.15(2) An employer must ensure that a worker using the respiratory protective equipment:

(a) is adequately trained by a competent person in the proper fit, testing, maintenance, use and cleaning of the equipment and in its limitations;

(b) is able to test, maintain and clean the equipment;

(c) is able to use the equipment safely; and

(d) inspects and tests the equipment before each use.

WHAT DOES THIS MEAN TO YOU?

EMPLOYERS MUST:

- * Identify any hazard(s) in the workplace
- * Tell those who may be affected by the hazard(s) present
- * Do something to eliminate, control, or reduce the risk
I.e. provide training and issue personal protective equipment

WORKERS HAVE:

- * The right to refuse dangerous work
- * The right to know about the hazards of the job
- * The right to participate in their own health & safety training
- * The responsibility to wear and take care of personal protective equipment issued by their employer

RESPIRATORY PROTECTION

There are TWO basic types of respiratory protective devices. They each have UNIQUE applications:

- those that PURIFY air already present – to be used if you KNOW that the hazard present can be safely filtered (refer to MSDS).
- those that SUPPLY breathing air – to be used when you DON'T know the hazard present OR when filter cartridges cannot reduce the hazard to a safe level.

AIR PURIFYING RESPIRATORS:

Classifications:

- Particulate removing filters
- Gas and vapor removing cartridges
- Combination particulate and gas/vapor removing respirator

*** NOTE: The filter chosen is SPECIFIC to the hazard(s) present. REFER TO MSDS WHEN CHOOSING FILTER CARTRIDGES. Filter cartridges are to be REPLACED daily, or sooner, if they are no longer effectively controlling the hazard.

SUPPLIED AIR RESPIRATORS:

SCBA (Self Contained Breathing Apparatus)
(I.e. Scott Air Pak)
Combination supplied air / air purifying respirator
Combination supplied air / SCBA respirator
Emergency Escape Respirators

Types of respirators:

- Disposable dust respirator
- Mouth-bit respirator
- Quarter mask respirator
- Half mask respirator
- Full face respirator

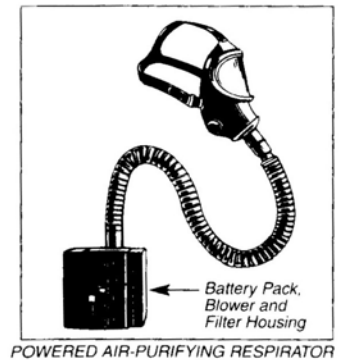


RESPIRATOR SELECTION CRITERIA

- * Air Contaminants Present
- * Concentration of Contaminants Present
- * Environmental Factors
- * Compare Respirator Features with Needs
- * Worker Consideration

CLEANING / MAINTENANCE / STORAGE

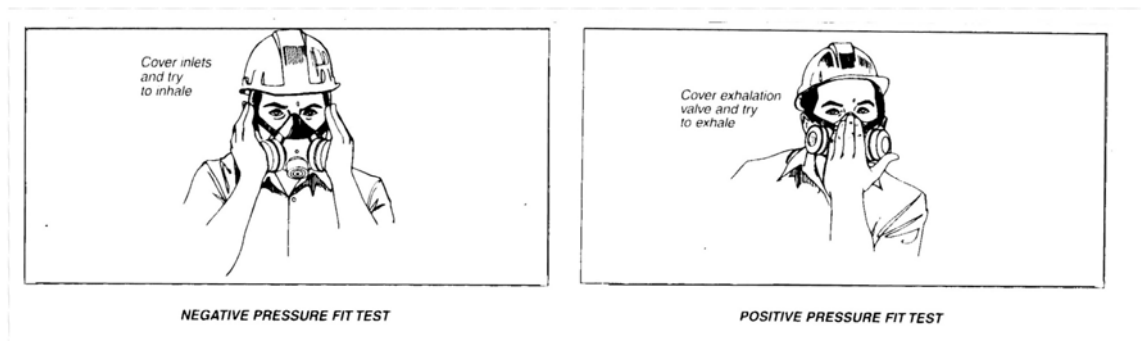
- Must be dismantled and disinfected
- Degradation of respirator must be prevented
- Regular inspections
- Stored in an uncontaminated, cool, dry environment



FIT TESTING

A proper fit is critical in order for the respirator to protect the wearer.

The seal of the respirator **MUST** be checked **EACH** time respiratory equipment is used and **BEFORE** entry into a hazardous atmosphere.



THREE METHODS OF CHECKING THE FACEPIECE SEAL:

1) Irritant or Odorous Test Agent

The respirator wearer is subjected to a non-toxic irritant or odorous agent. If the wearer is not able to detect penetration of the test agent, then the seal on the respirator is satisfactory. **NOTE:** The respirator should be equipped with cartridges that are appropriate for the test agent used.

2) Negative-Pressure Sealing Test

The respirator's air inlets (cartridges, canisters, and breathing tubes) are tightly covered to block air passage. The respirator wearer then inhales to collapse the face piece slightly, and holds his breath for 10 seconds. If the face piece remains collapsed, then the seal on the respirator is satisfactory.

3) Positive-Pressure Sealing Test

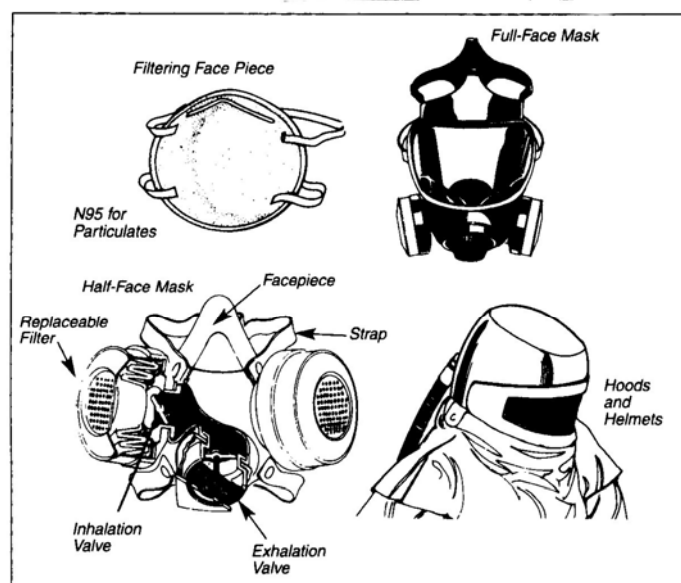
The respirator's air outlet (the exhalation valve) is blocked to prevent air escape. The respirator wearer exhales slightly to increase the pressure inside the face piece. Any outward leakage around the face piece indicates that the face piece is not sealed properly and is unsatisfactory.

It is extremely important that each respirator wearer understand the Company's policy and the need for workers to be clean shaven, without sideburns, with no major facial scars, with a complete set of dentures (if applicable), and any other item that may affect his/her ability to achieve an acceptable seal with the face piece.

Specially designed prescription glasses are available for people wearing full face piece respirators.

Each supervisor should thoroughly explain these requirements prior to fit testing.

DIFFERENT STYLES OF FACEPIECES ARE AVAILABLE:



RESPIRATORY PROTECTION - QUIZ

NAME: _____

DATE: _____

T/F – True or False M.C. – Multiple Choice

1. T / F - It is the worker's responsibility to wear and take care of Respiratory Protection Equipment issued by his/her employer.

2. M.C. - If you cover the inlets of a filter cartridge type respirator and try to inhale, you are performing a:
 - a) Irritant or Odorous Test Agent Sealing Test
 - b) Negative-Pressure Sealing Test
 - c) Positive-Pressure Sealing Test

3. T / F - The employer must issue Personal Protective Equipment and train employees in its use if the employer cannot eliminate or reduce a hazard present in the workplace.

4. T / F - The three rights of workers in regards to health and safety are:
 - a) The right to refuse dangerous work
 - b) The right to know about hazards present in the workplace
 - c) The right to participate in their own health and safety training

5. M.C. - If you cover the exhalation valve of a filter cartridge type respirator and try to exhale, you are performing a:
 - a) Irritant or Odorous Test Agent Sealing Test
 - b) Negative-Pressure Sealing Test
 - c) Positive-Pressure Sealing Test

6. T / F - One type of filter cartridge will protect you from all airborne hazards present.

7. M.C. - When deciding which type of filter cartridge to use for the airborne hazards present at your workplace, you should:
 - a) Consult the MSDS sheets for the products you use
 - b) Use whatever filters are available on your job site

8. T / F - Filter cartridges will offer respiratory protection for a long time and rarely need to be replaced.

QUIZ - ANSWER SHEET

1. T / F - It is the worker's responsibility to wear and take care of Respiratory Protection Equipment issued by his/her employer.

ANSWER: TRUE

2. M.C. - If you cover the inlets of a filter cartridge type respirator and try to inhale, you are performing a:

- a) Irritant or Odorous Test Agent Sealing Test
- b) Negative-Pressure Sealing Test
- c) Positive-Pressure Sealing Test

ANSWER: b)

3. T / F - The employer must issue Personal Protective Equipment and train employees in its use if the employer cannot eliminate or reduce a hazard present in the workplace.

ANSWER: TRUE

4. T / F - The three rights of workers in regards to health and safety are:

- a) The right to refuse dangerous work
- b) The right to know about hazards present in the workplace
- c) The right to participate in their own health and safety training

ANSWER: TRUE

5. M.C. - If you cover the exhalation valve of a filter cartridge type respirator and try to exhale, you are performing a:

- a) Irritant or Odorous Test Agent Sealing Test
- b) Negative-Pressure Sealing Test
- c) Positive-Pressure Sealing Test

ANSWER: c)

6. T / F - One type of filter cartridge will protect you from all airborne hazards present.

ANSWER: FALSE

7. M.C. - When deciding which type of filter cartridge to use for the airborne hazards present at your workplace, you should:

- a) Consult the MSDS sheets for the products you use
- b) Use whatever filters are available on your job site

ANSWER: a)

8. T / F - Filter cartridges will offer respiratory protection for a long time and rarely need to be replaced.

ANSWER: FALSE