

CSA Standard Z94.4-02 Selection, Use and Care of Respirators

Scope and Application:

This standard specifies requirements for the proper selection, use and care of respirators. The purpose is to protect respirator users from a known or potential respiratory hazard in their working environment. The standard also outlines the components for an effective respiratory protection program. This standard does not address the selection of respirators for use against infectious agents or nuclear biological chemical agents. .

Definitions:

- **Air-purifying respirator** - a respirator with an air-purifying element (i.e. filter, canister, cartridge), which removes specific air contaminants by passing ambient air through the element
- **Atmosphere-supplying respirator** - a respirator which supplies the respirator user with gas/breathing air from an independent source of the ambient atmosphere
- **Fit test** - the use of a quantitative or qualitative method to evaluate the fit of a particular model, make and size of respirator on an individual.
- **Qualitative fit test (QLFT)** - a pass/fail test method that relies on the individual's *sensory response* to detect a challenge agent to assess the respirator fit
- **Quantitative fit test (QNFT)** - a test method that uses an instrument to assess the *amount of leakage* into the respirator to assess respirator fit
- **Seal test** – a positive and negative pressure seal check used to determine if the respirator is properly seated to the face of the user.
- **Respiratory protection** - provided to protect the user from inhaling a hazardous contaminant, when:
 - administrative or engineering control measures are not adequate or practicable
 - while control measures are being implemented
 - during a shutdown for repair, maintenance or emergency

Respiratory Protection Program must be in written form and be prepared by the employer. The program shall include:

- Roles and responsibilities of individuals administering the program
- Hazard assessment
- Selection of appropriate respirator
- Respirator fit testing
- Training
- Use of respirators
- Inspection, maintenance, cleaning and storage of respirators
- Health surveillance of respirator users
- Program evaluation
- Record keeping

Selection of Respirators is based on:

- a systematic review of the hazards
- an understanding of the current regulatory standards/guidelines
- manufacturer's information on the types of respirators and the limitations to ensure that the appropriate respirator is selected.

Hazard assessment identifies:

- the contaminants present in the workplace
- warning properties, concentration and physical state
- appropriate occupational exposure limit(s)
- routes of entry into the body
- if the atmosphere is oxygen-deficient
- if a particulate hazard is present

(Over)

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- the potential for any oil to become airborne
- if conditions are immediately dangerous to life or health
- if skin or eye absorption occurs
- any irritation characteristics

Accepted Respirators:

1. *atmosphere supplied respirators* – supplied-air; self contained breathing apparatus; combination of supplied air and auxiliary self contained air supply
2. *air-purifying respirators* – non powered/powerd respirators; gas masks
3. *special use respirators* – supplied air suits; escape only respirators.

A qualified person establishes a change-out schedule for the replacement of air-purifying elements of respirators. Change-out may include good warning properties, breathing resistance and maximum use time.

Respirator Fit-Testing:

- quantitative or qualitative test
- seal test is *not* a substitute for quantitative or qualitative fit test
- used to select the appropriate size and model of respirator
- done after a health surveillance evaluation and prior to initial use
- repeated:
 1. at least every 2 years,
 2. when there is change in the respirator face piece, or
 3. when a user's physical condition changes which may affect the fit of the respirator.
- the fit test is done only if the user is clean shaven where the face piece seals to the skin

Cleaning and Sanitizing shall be done according to the manufacturer's instructions. Disposable respirators are disposed of after use as directed by the manufacturer's instructions.

Limitations are those restrictions, warnings, cautions and prohibitions imposed by the manufacturers, certification and testing agencies, regulatory authorities and the employer on the care, use and maintenance of the respirator.

This bulletin contains a summary of excerpts taken from the Standard, for general information purposes only. This bulletin is not reflective of the complete requirements that the Standard prescribes.

Note: *Manitoba Regulation M.R. 217/2006 Section 1.4 inconsistency:*

If there is an inconsistency between this regulation and a requirement contained in a publication, code or standard referenced in this regulation, the provisions in this regulation prevail.