
FALL RIVER
NEW BEDFORD
PLYMOUTH

Occupational Safety and Health of the U.S. Department of

- ☐ Gas and vapor removing respirators, which remove specific individual; contaminants or a combination of contaminants by absorption, adsorption or by chemical reaction. Gas masks and chemical cartridge respirators are examples of gas and vapor removing respirators.
- ☐ Combination particulate/gas and vapor removing respirators, which combine the respirator characteristics of both kinds of air-purifying respirators.

4.2.B.2. Supplied Air Respirators (SAR) - These respirators provide breathing air independent of the environment. Such respirators are to be used when the contaminant has insufficient odor, taste or irritating warning properties, or when the contaminant is of such high concentration or toxicity that an air purifying respirator is inadequate. Supplies air respirators, also called air line respirators are classified as follows:

- ☐ Demand - This respirator supplies air to the user on demand (inhalation) which creates a negative pressure within the face-piece. Leakage into the face-piece may occur is there is a poor seal between the respirator and the user's face.
- ☐ Pressure Demand - This respirator maintains a continuous positive pressure within the face-piece, thus preventing leakage into the face-piece.
- ☐ Continuous Flow / Positive Pressure - This respirator maintains a continuous flow of air through
- ☐ Self-Contained Breathing Apparatus (SCBA) -This type of respirator allows the user complete independence from a fixed source of air and offers the greatest degree of protection but is also the most complex. Training and practice in its use and maintenance is essential. This type of device will be used in emergencies only.

4.3. Identification of Respirator Cartridges and Gas Mask Canisters

4.3.A. Respirator cartridges and canisters are designed to protect against individual or a combination of potentially hazardous atmospheric contaminants, are specifically labeled and color coded to indicate the type and nature of protection they provide.

4.3.B. The NIOSH approval label on the respirator will also specify the maximum concentration of contaminant(s) for which the cartridge or canister is approved. For example, a label may read:

4.4. Warning Signs of Respirator Failure

4.4.A. Particulate Air Purifying

4.4.A.1. When breathing difficulty is encountered with a filter respirator (due to partial clogging with increased resistance), the filter(s) must be replaced. Disposable filter respirators must be discarded.

4.4.B. Gas or Vapor Air Purifying

4.4.B.1. If, when using a gas or vapor respirator (chemical cartridge or canister), any of the warning properties (e.g. odor, taste, eye irritation, or respiratory irritation) occur, promptly leave the area and check the following:

- ☐ Proper face seal
- ☐ Damaged or missing respirator parts

☐ Saturated or inappropriate cartridge or canister

4.4.B.2. If no discrepancies are observed, replace the cartridge or canister. If any of the warning properties appear again, the concentration of the contaminants may have exceeded the cartridge or canister design specification. When this occurs, an airline respirator or SCBA is required.

4.4.C. Service Life of Air Purifying Respirator Canisters and Cartridges

4.4.C.1. The canisters or cartridges of air purifying respirators are intended to be used until filter resistance precludes further use, or the chemical sorbent is expended as signified by a specific warning property, e.g. odor, taste, etc. New canisters, cartridges or filters shall always be provided when a respirator is reissued, When in doubt about the previous use of the respirator, obtain a replacement canister or cartridge.

4.4.D. Supplied Air Respirator

4.4.D.1. When using an airline respirator, leave the area immediately when the compressor failure alarm is activated or if an air pressure drop is sensed. When using an SCBA leave the area as soon as the air pressure alarm is activated.

5. TRAINING

5.1. Respirator users and their supervisors will receive training on the contents of the BRISTOL COMMUNITY COLLEGE Respiratory Protection Program and their responsibilities under it. They will be trained on the proper selection and use, as well as the limitations of the respirator. Training also covers how to ensure a proper fit before use and how to determine when a respirator is no longer providing the protection intended.

5.2. Bristol Community College provides training of respirator wearers in the use, maintenance, capabilities, and limitations of respirators upon initial assignment of personnel to tasks requiring the use of respirators. Retraining is given annually thereafter and only upon successful completion of the medical evaluation.

6. MAINTENANCE

6.1. The maintenance of respiratory protective devices involves a thorough visual inspection for cleanliness and defects (i.e., cracking rubber, deterioration of straps, defective exhalation and inhalation valves, broken or cracked lenses, etc,) Worn or deteriorated parts will be replaced prior to reissue. No respirator with a known defect is reissued for use. No attempt is made to replace components, make adjustments or make repairs on any respirator beyond those recommended by the manufacturer. Under no circumstances will parts be substituted as such substitutions will invalidate the approval of the respirator. Any repair to reducing or admission valves, regulators, or alarms will be conducted by either the manufacturer or a qualified trained technician.