

## **I. PURPOSE**

- A. To establish a respirator program to coordinate the selection, use and maintenance of respiratory equipment to:
  - 1. Protect employees from exposure to toxic chemical agents.
  - 2. Allow employees to work safely in hazardous work environments.

## **II. GUIDELINES**

- A. The guidelines in the program are designed to help reduce employee exposures against occupational dusts, fumes, mists, radionuclides, gases and vapors. The primary objective is to prevent excessive exposure to these contaminants.
- B. Where feasible, exposure to contaminants will be eliminated by engineering controls (example: general and local ventilation, enclosure or isolation, and substitution of a less hazardous process or material).
- C. When effective engineering controls are not feasible, use of personal respiratory protective equipment may be required to achieve this goal.

## **III. MEDICAL EXAMINATION**

- A. Before being assigned a task requiring the use of a respirator, the employee shall be examined by a physician to determine whether or not he/she can wear a respirator safely. The physician shall determine the prevailing health and physical conditions. In addition, an annual evaluation shall be made to determine if the employee can continue to wear the respirator.
- B. Respirators shall not be worn when conditions prevent a good face seal. Conditions include growth of a beard, sideburns, a skullcap that projects under the facepiece, or temple pieces of glasses. In addition, periodic inspections shall be made to ascertain that employees have not developed these conditions.

## **IV. WORK AREA MONITORING**

- A. Monitoring shall be conducted on a periodic basis (if necessary) to provide for a continuing healthful environment for employees. Personal sampling

equipment may be used in accordance with accepted industrial hygiene standards to sample each work area. Results of these samples will pinpoint areas where respiratory protection is required.

## **V. RESPIRATOR SELECTION**

- A. Respirators shall be selected on the basis of hazards to which the worker is exposed.

## **VI. SELECTION BY EMPLOYEES**

- A. Each employee shall be allowed to select the most comfortable respirator from an array of respirators that includes at least three sizes of elastometric half-facepieces and units from at least two manufacturers.
- B. The selection process shall be conducted in a room separate from the fit-test chamber to prevent odor fatigue. Prior to the selection process, the employee shall be shown how to put on a respirator, how it shall be positioned on the face, how to set strap tension and how to assess a “comfortable” respirator. A mirror shall be available to assist the employee in evaluating the fit and positioning of the respirator.
- C. Assessment of comfort shall include reviewing the following points with the employee:
  - 1. Chin properly placed
  - 2. Positioning of mask on nose
  - 3. Strap tension
  - 4. Fit across nose bridge
  - 5. Room for safety glasses
  - 6. Distance from nose to chin
  - 7. Room to talk
  - 8. Tendency to slip
  - 9. Cheeks filled out
  - 10. Self-observation in mirror
  - 11. Adequate time for assessment

- D. The employee shall conduct the conventional negative and positive pressure fit checks (see ANSI standard Z88.2-1980, Practices for Respiratory Protection). Before conducting the negative or positive pressure checks, the employee shall be told to “seat” his/her mask by rapidly moving the head from side-to-side and up and down while taking a few deep breaths.

## **VII. FIT TESTING**

- A. Qualitative fit testing must be conducted on an annual basis for all personnel who might be required to use a respirator or who must use a respirator as a part of their normal job.
- B. There are three methods of qualitative fit testing:
  - 1. Isoamyl Acetate Protocol
  - 2. Saccharin Solution Aerosol Protocol
  - 3. Irritant Fume Protocol
- C. These methods are described in Appendix C of OSHA standard 1910.1001. The Irritant Fume Protocol is the preferred method. Testing will be conducted exactly as outlined in the protocols, and properly documented.

## **VIII. TRAINING**

- A. All employees using respirators shall receive instruction and training in the proper use of respirators and their limits. The training must include allowing workers the opportunity to:
  - 1. Handle the respirator(s)
  - 2. Have it fitted properly
  - 3. Test its facepiece-to-face seal
  - 4. Wear it in normal air for a familiarity period
  - 5. Wear it in a test atmosphere
- B. The employee shall be informed of the particular hazard, its toxicity, why this respirator is used, and what engineering steps are being taken to remove the hazard, if applicable.

- C. If the respirator is to be cleaned and disinfected by the employee, he/she shall be shown how to do it, told how often cleaning is necessary and educated about proper storage and inspection procedures.

## **IX. INDIVIDUAL ASSIGNMENTS**

- A. Respirators shall be assigned on an individual basis, whenever possible. Respirators shall also be permanently marked so as to identify the person to whom the respirator is assigned. This marking shall not interfere with the performance of the respirator in any way. OSHA standard 1910.134(c)(2) requires that a record be maintained of the date the respirator was issued.

## **X. RESPIRATORY STORAGE**

- A. Respirators must be stored in a convenient, clean, and sanitary location. Either the original container or a plastic bag is acceptable for storage. The respirator shall not be stored where it could get exposed to direct sunlight, dust, heat, extreme cold, excessive moisture or damaging chemicals.

## **XI. RESPIRATOR STORAGE**

- A. The following guidelines apply to respirator inspection:
  - 1. The wearer of a respirator will inspect it daily whenever it is in use.
  - 2. The supervisor will check, at least monthly, respirators for fit, usage, and condition.
  - 3. Respirators not discarded after on shift use will be cleaned on a daily basis, according to the manufacturers' instructions, by the assigned employee.
  - 4. Whenever feasible, respirators not discarded after one shift use, will be marked or stored in such a manner to assure that they are worn only by the assigned employee. If use by more than one employee is required, the respirator will be cleaned between uses.
  - 5. Each area requiring the regular use of respirators will maintain a log book. Employees not discarding respirators after one shift shall sign this log book daily in order to document the inspection and maintenance of their respirators.

- B. The cleaning process shall include removing the filters, cartridge or canisters; washing in a cleaning disinfectant or detergent solution; rinsing; disinfecting, rinsing; and air drying. Disinfectant solutions will be used.
- C. During the cleaning process, respirators are required to be inspected for tightness of connections and the condition of the facepiece, headband, valves, connecting tube and canisters. Rubber or elastomer parts must be inspected for pliability and signs of deterioration. The inspection is required for respirators used for routine purposes, before and after each use.

## **XII. PROGRAM EVALUATION**

- A. Regular inspections to determine the effectiveness of the respiratory program shall be conducted by the department supervisor. This will be done by observing the worker to ascertain if respirators are being used properly. If a problem is observed, the worker shall receive additional instruction and training.

## **XIII. SPECIFIC RESPIRATORS USED AT MTE**

*Reserved for future identification*

## **XIV. REFERENCES**

- 29 CFR 1910.134: Respiratory Protection
- ANSI Z88.2-1980: Practices for respiratory protection.