

Safety Manual Chapter 23

Respirator Safety - Issue Date 8/97

23-1 When a Respirator is Needed

- **23-1.01** Most hazards are invisible. The only way to know when a respirator is needed is to test the atmosphere.
- **23-1.02** The atmosphere of a confined space must be tested immediately before entry - every time the space is entered. Testing may indicate oxygen deficiency, an explosive or flammable atmosphere, or high concentrations of other hazardous substances.
- **23-1.03** Most other potentially hazardous work places must be tested periodically to be sure the atmosphere is safe to breathe. If the atmosphere does not measure up, anyone who works in it will be assigned a respirator to wear.
- **23-1.04** The harmful concentration of most hazardous substances is so low it is measured in parts per million, or even parts per trillion. Testing is important whenever there is any question about air quality. It is the only way to be absolutely sure the air is safe to breathe and the only way to determine how much protection is required.
- **23-1.05** If you are told to wear a respirator, wear it- even if the air seems okay to you.
- **23-1.06** Respirators are your only protection in a hazardous atmosphere. Always wear a respirator when one is required!!

23-2 Who Can Wear a Respirator

- **23-2.01** In order to wear a respirator you must be in good health and you must be able to achieve a proper fit.

23-3 Medical Requirements

- **23-3.01** Anyone who is going to have to work with a respirator must first have a medical checkup. If you have a breathing problem such as asthma, if you have a heart condition or severely high blood pressure, or if you are extremely sensitive to heat, you may not be able to work with a respirator.

23-4 Fit Test

- **23-4.01** An initial fit test is required for most respirators. The test must be repeated at least once a year, and records must be kept of the tests and respirator assignment.
- **23-4.02** A fit test can be either qualitative or quantitative. Both types require that you take deep breaths and go through a series of exercises to stimulate movements you will make as you work.
- **23-4.03** For a qualitative test, some kind of harmless irritant or otherwise detectable substance (usually one that can be smelled or tasted) is released near the seal of your face piece.

23-5 Program

- **23-5.1 Purpose**
The purpose of this program is to set forth standard operating procedures governing the selection and use of respirators. Appropriate respirators shall be used in accordance with this program to control adverse health effects caused by breathing harmful air contaminants. Though the primary objective shall be to prevent atmospheric contamination, respirators shall be used when effective engineering controls are not feasible, or while they are being implemented.
- **23-5.2 Scope**
 - **23-5.21** The following program establishes guidelines for safe practice in the use of respiratory protective devices to ensure the safety and health of the Eastern Illinois University staff using these devices under routine and emergency conditions.

- **23-5.22** The provisions of this document were established per the requirements listed in the Federal OSHA Standard 29 CFR 1910.134, as enforced at Eastern Illinois University by the Illinois Department of Labor.
- **23-5.23** Additional guidelines for this document were provided by the NIOSH Guide to Industrial Respiratory Protection, the NIOSH Respirator Decision Logic, and ANSI Z88.6-1984.
- **23-5.3 General Requirements**
 - **23-5.31** General requirements for the respirator program according to 29 CFR 1910.134 and pertinent guidelines are as follows:
 - **23-5.31** Respirators shall be selected by the employee with assistance from the Eastern Illinois University Department of Environmental Safety and the manufacturer's representative. Selection shall be based on:
 - The type of hazards to which the worker will be exposed;
 - The estimated concentration of the contaminant.
 - Pertinent OSHA regulations (expanded health standards).
 - **23-5.32** The employees shall be instructed and trained in the proper use of respirators and their limitations. The department shall be responsible for assuring that training is given to the user initially and annually thereafter. This training material may be presented by an appropriate manufacturer's representative or other qualified individuals.

Training shall include:

- Proper cleaning and disinfecting of respirators,
- Proper inspection procedures,
- Proper storing of respirator
- Instruction in actual use,
- Instruction on positive and negative pressure fit checks, and Fit testing.
- **23-5.33** Respirators shall be assigned to individual workers for their exclusive use. When this is not feasible, the department shall be responsible for ensuring that the respirator is maintained according to this program.
- **23-5.34** Respirators shall be cleaned and disinfected (by the user) after each use, daily, or as often as necessary to ensure sanitary use of the respirator. In the event that respirators are shared, they should be cleaned and disinfected after each use.
- **23-5.35** The department shall ensure that workers are provided a storage area for respirators that is in a convenient, clean, and sanitary location. The respirators should be stored so as to no damage the integrity of the mask.
- **23-5.36** Respirators shall be inspected by the user during cleaning following the procedures learned in training. Inspection shall include:
 - **23-5.36a** Face piece
 - **23-5.36b** Straps
 - **23-5.36c** Inhalation and exhalation valves
 - **23-5.36d** Filters or cartridges
 - **23-5.36d01** Any sign of damage or excessive wear shall be reported to the supervisor immediately.
 - **23-5.36d02** Respirators for emergency use shall be inspected by the individuals responsible for responding to such emergencies once a month and after each use.
- **23-5.37** The department will institute at least annual inspections and evaluations to determine the continued effectiveness of the Respirator Program.
- **23-5.38** Persons shall not be assigned to tasks requiring use of respirators unless it has been determined that they are physically able to perform the work and use the equipment.
 - **23-5.381** The employees' departments shall be responsible for ensuring that appropriate physical exams are made available to the workers. Physical exam requirements shall follow the guidelines of the American National Standard for respiratory protection (ANSI Z88.6-1984).
- **23-5.39** Only approved respirators shall be used.