

UA RESPIRATORY PROTECTION PROGRAM

PURPOSE

The purpose of this respirator program is to establish standard operating procedures to ensure the protection of all employees from respiratory hazards through proper selection and use of respirators. This program applies to all employees who are required to wear respirators during normal operations, non-routine tasks, or emergency operations such as a spill of a hazardous substance.



RESPONSIBILITIES

Program Administrator Duties

The University has designated EHS (Hal Barrett/Marty Sumners) as the program administrator to oversee the respiratory protection program. Duties of the program administrator include:

- Identifying work areas, processes or tasks that require workers to wear respirators, and evaluating hazards.
- Selection of respiratory protection options.
- Monitoring respirator use to ensure that respirators are used in accordance with their certifications.

- Arranging for and/or conducting training.
- Ensuring proper storage and maintenance of respiratory protection equipment.
- Conducting or arranging for fit testing.
- Administering the medical surveillance program.
- Maintaining records required by the program.
- Evaluating the program.
- Updating written program as needed.

Supervisors Duties

Supervisors are responsible for ensuring that the respiratory protection program is implemented in their particular areas. In addition to being knowledgeable about the program requirements for their own protection, supervisors must also ensure that the program is understood and followed by the employees under their charge. Duties of the supervisor include:

- Ensuring that employees under their supervision (including new hires) have received appropriate training, fit testing, and medical evaluation.
- Ensuring the availability of appropriate respirators and accessories.
- Being aware of tasks requiring the use of respiratory protection.
- Enforcing the proper use of respiratory protection when necessary.
- Ensuring that respirators are properly cleaned, maintained, and stored according to the respiratory protection plan.
- Ensuring that respirators fit well and do not cause discomfort.
- Continually monitoring work areas and operations to identify respiratory hazards.
- Coordinating with the program administrator on how to address respiratory hazards or other concerns regarding the program.

Employees Duties

Each employee has the responsibility to wear his or her respirator when and where required and in the manner in which they were trained. Employees must also:

- Care for and maintain their respirators as instructed and store them in a clean sanitary location.
- Inform their supervisor if the respirator no longer fits well and request a new one that fits properly.

- Inform their supervisor or the program administrator of any respiratory hazards that they feel may not be adequately addressed in the workplace and of any other concerns that they have regarding the program.

PROGRAM ELEMENTS

Respirator Selection

Respirators are selected on the basis of the hazards to which the employees are exposed and in accordance with OSHA requirements. Only NIOSH certified respirators will be selected and used.



The Program Administrator will conduct a hazard evaluation for each operation process or work area where airborne contaminants may be present in routine operations or during an emergency.

The hazard evaluation will include:

- Identification of the hazardous substances used in the workplace, department or work process.
- Review of work processes to determine where potential exposures to these hazardous substances may occur; and



- Exposure monitoring to quantify potential hazardous exposures.
- Make the hazard evaluations accessible to the employee for review (at EHS).
- Update hazard assessments as needed (i.e., any time work process changes which may potentially affect exposure).

General requirements

- EHS shall select and provide an appropriate respirator based on the respiratory hazard(s) to which the worker is exposed and workplace and user factors that affect respirator performance and reliability.
- EHS shall select a NIOSH-certified respirator. The respirator shall be used in compliance with the conditions of its certification.
- EHS shall identify and evaluate the respiratory hazard(s) in the workplace; this evaluation shall include a reasonable estimate of employee exposures to respiratory hazard(s) and an identification of the contaminant's chemical state and physical form. Where the employer cannot identify or reasonably estimate the employee exposure, EHS shall consider the atmosphere to be IDLH.
- EHS shall select respirators from a sufficient number of respirator models and sizes so that the respirator is acceptable to, and correctly fits, the user.

Respirators for Immediately Dangerous to Life and Health (IDLH) atmospheres

EHS shall provide the following respirators for employee use in IDLH atmospheres:

- A full facepiece pressure demand SCBA certified by NIOSH for a minimum service life of thirty minutes, or
- A combination full facepiece pressure demand supplied-air respirator (SAR) with auxiliary self-contained air supply.
- Respirators provided only for escape from IDLH atmospheres shall be NIOSH-certified for escape from the atmosphere in which they will be used.
- All oxygen-deficient atmospheres shall be considered IDLH.



Respirators for atmospheres that are not IDLH

The employer shall provide a respirator that is adequate to protect the health of the employee and ensure compliance with all other OSHA statutory and regulatory requirements, under routine and reasonably foreseeable emergency situations.

NIOSH Certification

All respirators must be certified by the National Institute for Occupational Safety and Health (NIOSH) and shall be used in accordance with the terms of that certification. Also, all filters, cartridges, and canisters must be labeled with the appropriate NIOSH approval label. The label must not be removed or defaced while it is in use.

Voluntary Respirator Usage

EHS shall authorize voluntary use of respiratory protective equipment as requested by all other workers on a case-by-case basis, depending on specific workplace conditions and the results of evaluations.



Respirator Filter & Canister Replacement/Change Schedule

Cartridges/Filters shall be changed based on the factors below:

- Prior to expiration date.
- Manufacturer's recommendations for use and environment.
- When requested by employee
- When restriction to air flow has occurred as evidenced by increased effort by user to breathe normally.

Medical Evaluation

Employees who are required to wear respirators must be medically evaluated before being permitted to wear a respirator on the job. Employees are not permitted to wear respirators if it is determined that they are medically able to do so.



A licensed health care professional at University Medical Center will provide the medical evaluation to employees. Medical evaluation procedures are as follows:

- The medical evaluation will be conducted using the UA medical questionnaire. EHS will provide a copy of this questionnaire to all employees requiring medical evaluation.
- To the extent feasible, the company will assist employees who are unable to read the questionnaire. When this is not possible the employee will be sent directly to the health care professional for assistance and medical evaluation.
- All affected employees will be given a copy of the medical questionnaire to fill out. Employees will be permitted to fill out the questionnaire on company time.
- Follow up medical exams will be provided to employees as deemed necessary by the health care professional.
- All employees will be allowed the opportunity to speak with the health care professional about their medical evaluation if they so request.
- After an employee has received clearance to wear a respirator, additional medical evaluations will be provided under any of the following circumstances:
 - The employee reports signs and/or symptoms related to their ability to use a respirator, such as shortness of breath, dizziness, chest pains, or wheezing;

- The health care professional or supervisor informs EHS that the employee needs to be reevaluated;
- Information from this program, including observations made during fit testing and program evaluation, indicates a need for reevaluation; and
- A change occurs in workplace conditions that may result in an increased physiological burden on the employee.

NOTE: *All examinations and questionnaires are to remain confidential.*



Fit Testing Procedures

EHS will ensure that fit-test will be administered using an OSHA-accepted qualitative fit test (QLFT) or quantitative fit test (QNFT) protocol.

EHS requires employees to be fit tested at the following times and with the same make, model, style, and size of respirator that they will be using.

- Before being allowed to wear any respirator with a tight-fitting facepiece and at least annually thereafter.
- Whenever a different respirator facepiece (size, style, model, or make) is used.
- Whenever visual observations of changes in the employee's physical condition that could affect respirator fit. Such conditions include, but are not limited to, facial scarring, dental changes, cosmetic surgery, or an obvious change in body weight; and

- Upon employee notification that the fit of the respirator is unacceptable.

EHS has a record of the fit tests administered to employees including:

- The name or identification of the employee tested.
- Type of fit test performed.
- Specific make, model, style, and size of respirator tested.
- Date of test; and
- The pass/fail results.

USE OF RESPIRATORS

General Use Procedures

Employees will use their respirators under conditions specified by this program, and in accordance with the training they receive on the use of each particular model. In addition, the respirator shall not be used in a manner for which it is not certified by NIOSH or its manufacturer.



All employees shall conduct user seal checks each time that they wear their respirator. Employees shall use either the positive or negative pressure check (depending on which test works best for them).

All employees shall be permitted to leave the work area to maintain their respirator for the following reasons; to clean their respirator if the respirator is impeding their ability to work, change filters or cartridges, replace parts, or to inspect respirator if it stops functioning as intended. Employees should notify their supervisor before leaving the area.

Employees are not permitted to wear tight fitting respirators if they have any condition, such as facial hair, facial scars, or missing dentures that prevents them from achieving a good seal. Employees are not permitted to wear headphones, jewelry, or other articles that may interfere with the facepiece to face seal.



Respirator Malfunction

For any malfunction of a respirator (e.g., such a breakthrough, facepiece leakage, or improperly working valve), the respirator wearer should inform his or her supervisor that the respirator no longer functions as intended, and go to a safe area to maintain the respirator. The supervisor must ensure that the employee receives the needed parts to repair the respirator, or is provided with a new respirator.

Maintenance and Care Procedures

In order to ensure continuing protection with the respirators being used, it is necessary to establish and implement proper maintenance and care procedures and schedules. A lax attitude toward maintenance and care will negate successful selection and fit because the devices will not deliver the assumed protection unless they are kept in good working order.

Cleaning & Disinfecting

EHS provides each respirator user with a respirator that is clean, sanitary, and in good working order. We ensure that respirators are cleaned and disinfected monthly or as often as necessary to be maintained in a sanitary condition. Respirators are cleaned and disinfected using the procedures specified in the manufacturer's recommendations.

Respirators are cleaned and disinfected:

- As often as necessary when issued for the exclusive use of one employee;
- Before being worn by different individuals;
- After each use for emergency use respirators; and
- After each use for respirators used for fit testing and training.

Storage

Storage of respirators must be done properly to ensure that the equipment is protected and not subject to environmental conditions that may cause deterioration. Ensure that respirators are stored to protect them from damage, contamination, dust, sunlight, extreme temperatures, excessive moisture,, and damaging chemicals. They are packed and stored in a clean and dry manner in accordance with any applicable manufacturer's instructions.

Emergency respirators are stored:

- To be accessible to the work area;
- In compartments marked as such; and
- In accordance with manufacturer's recommendations.

Respirator Inspection

All respirators will be inspected after each use and at least monthly. Should any defects be noted, the respirators will be taken to EHS or their supervisor. Damaged respirators will be either repaired or replaced.

Respirators shall be inspected as follows:

- All respirators used in routine situations shall be inspected before each use and during cleaning;
- All respirators maintained for use in emergency situations shall be inspected at least monthly and in accordance with manufacturer's recommendations, and shall be checked for proper function before and after each use; and

- Emergency escape-only respirators shall be inspected before being carried into the workplace for use.



Respirator inspections shall include the following:

- A check of respirator function, tightness of connections, and the condition of the various parts including, but not limited to, the facepiece, head straps, valves, connecting tube, and cartridges, canisters or filters; and
- Check of elastomeric parts for pliability and signs of deterioration.

The following checklist will be used when inspecting respirators:

Facepiece:

- cracks, tears, or holes
- facemask distortion
- cracked or loose lenses/faceshield

Headstraps:

- breaks or tears
- broken buckles

Valves:

- residue or dirt
- cracks or tears in valve material

Filters/Cartridges:

- approval designation
- gaskets

- cracks or dents in housing
- proper cartridge for hazard

Air Supply Systems:

- breathing air quality/grade
- condition of supply hoses
- hose connections
- settings on regulators and valves

TRAINING

EHS will be responsible to provide training to respirator users or their supervisors on the contents of the Respiratory Protection Program and their responsibilities under it, and on the OSHA Respiratory Protection Standard. Workers will be trained prior to using a respirator in the workplace. Supervisors will also be trained prior to using a respirator in the workplace or prior to supervision of employees that must wear respirators.



The training will cover the following topics:

- The University of Alabama Respiratory Protection Program
- Respiratory hazards encountered and their health effects
- Proper selection and use of respirators
- Limitations of respirators
- Respirator donning and user seal (fit) checks



Fitting Instructions for 3M™ Filtering Facepiece Respirators

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Wearing your filtering facepiece respirator



1 Place the respirator over your nose and mouth. Be sure the metal nose clip is on top. With model 8210, pre-stretch the straps before wearing.



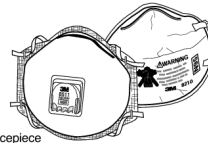
2 Pull the top strap over your head until it rests on the crown of your head above your ears.



3 Pull the bottom strap over your head until it rests just below your ears.



4 Using both hands starting at the top, mold the metal nose clip around your nose to achieve a secure seal. **Note:** Pinching the nosepiece using one hand may result in improper fit and less effective respirator performance. Use two hands.



Filtering facepiece non-valved respirator

Filtering facepiece valved respirator

Check the seal of your filtering facepiece respirator each time you don the respirator.

1a For non-valved respirators Place both hands completely over the respirator and *exhale*. The respirator should bulge slightly. If air leaks between the face and facesal of the respirator, reposition it and readjust the nose clip for a more secure seal. If you cannot achieve a proper seal, **do not** enter the contaminated area. See your supervisor.



1b For valved respirators Place both hands over the respirator and *inhale* sharply. The respirator should collapse slightly. If air leaks between the face and facesal of the respirator, reposition it and readjust the nose clip for a more secure seal. If you cannot achieve a proper seal, **do not** enter the contaminated area. See your supervisor.



- Fit testing
- Emergency use procedures
- Maintenance and storage
- Medical signs and symptoms limiting the effective use of respirators

Employees will be retrained annually or as needed (e.g., if they need to use a different respirator). Employees must demonstrate their understanding of the topics covered in the training utilizing a hands-on exercise. Respirator training will be documented by the EHS and the documentation will include the type, model, and size of respirator for which each employee has been trained and fit tested.

Program Evaluation

EHS will conduct periodic evaluations of the workplace to ensure that the provisions of this program are being implemented. The evaluation may include consultations with employees who use respirators and their supervisors, site inspections, air monitoring and review of records.

Identified problems will be noted and addressed by EHS. These findings will be reported to management, and the report will list plans to correct deficiencies in the respirator program and target dates for the implementations of those corrections.

Documentation and Recordkeeping

A written copy of this program and the OSHA standard is kept at EHS and is available to all employees who wish to review it.

Also maintained at EHS office are copies of training and fit test records. These records will be updated as new employees are trained, as existing employees receive refresher training, and as new fit tests are conducted.