



# Respiratory Protection Program

**Guidelines / Procedures SUBJECT:** Respiratory Protection Program

**Guideline/Procedure for AR#:** 3.03.006

**Management Safety Statement Date Effective:** 2/19/2003

---

## 1) Value Statement

ACC faculty, staff and students will be provided with respiratory protection from health hazards posed by airborne contaminants. Engineering controls and then administrative controls are the preferred methods for managing airborne hazardous contaminants. When these two measures are not practical, or when supplemental protection is required, additional personal protective equipment controls i.e. respirators shall be used.

## 2) Purpose

This program outlines responsibilities and provides procedures necessary to manage the use of respiratory protection equipment.

The purpose of Austin Community College District's (ACC) Respiratory Protection Program is to ensure Faculty, Staff or students in classroom or laboratory situations requiring respiratory protection:

- Receive appropriate training,
- Have appropriate personal protective equipment (PPE), and
- Any information necessary to ensure their safety while in the presence of potentially hazardous airborne contaminants.

## 3) Scope

This program defines the general respiratory protection procedures that all ACC faculty, staff, and students shall follow when using a respirator for work or class activities. This program is applicable to all ACC owned or leased facilities.

## 4) Definitions

- **4.1) Air Purifying Respirator (APR):** Respirator with an air-purifying filter, cartridge, or canister that removes specific air contaminants by passing ambient air through the air-purifying element.
- **4.2) Authorized Employee:** ACC employee (Staff) who has been approved by EHS&I to use a respirator after meeting the requirements of the ACC Respiratory Protection Program.

- **4.3) Contractor:** For purposes of this program refers to companies and their employees and other non-ACC employees hired on a contract basis to perform services at an ACC site and includes all members of the ACC contingent work force, including third party workers, temporary agency employees and consultants. This includes sub-contractors and their employees.
- **4.4) Fit Check:** A positive and negative pressure check for a positive respirator seal typically performed by the respirator user. *Note: A fit check does not qualify as a fit test.*
- **4.5) Fit Factor:** Number derived by dividing the concentration of the particles measured outside a respirator face piece by the concentration measured inside the face piece.
- **4.6) Fit Test:** A method for determining an individual's ability to get a good facial fit with a tight-fitting respirator. Fit test can be either qualitative or quantitative.
- **4.7) Full Face Respirator:** A respirator that incorporates a "see through" panel for visibility. This type face piece usually covers the face from roughly the hair line to below the chin.
- **4.8) IDLH: Immediately Dangerous to Life and Health:** A concentration of a particular airborne contaminant where exposure is likely to cause death, or immediate or delayed permanent adverse health effects or which prevent unaided escape from such an environment.
- **4.9) Negative Pressure Respirator:** Respirator that relies on inhalation through air-purifying elements to deliver breathable air to the user. Air evacuated from the respirator face piece during inhalation results in a negative pressure level with respect to the air pressure outside the respirator. This causes air to pass through the filter media as it moves from area of higher to lower pressure.
- **4.10) Oxygen Deficient:** An atmosphere with less than 19.5% oxygen level. Atmosphere with less than 16.5% oxygen is considered an IDLH situation.
- **4.11) Physician or other licensed health care professional (PLHCP):** Means an individual whose legally permitted scope of practice (i.e., license, registration, or certification) allows him or her to independently provide, or be delegated the responsibility to provide, some or all of the health care services required by the OSHA 1010.134 standard.
- **4.12) Student:** Anyone enrolled in any class at ACC.
- **4.13) TLV-Ceiling – Threshold Limit Value – Ceiling:** Airborne contaminant concentration that is not to be exceeded during any portion of the workday.
- **4.14) TLV-STEL – Threshold Limit Value – Short Term Exposure Limit:** A 15-minute time weighted average exposure that shall not be exceeded at any time during a workday.
- **4.15) TLV-TWA – Threshold Limit Value – Time Weighted Average:** A time weighted average concentration value for a normal 8-hour workday and a 40-hour work week to which nearly all workers will be continuously exposed repeatedly, day after day, without experiencing any adverse health effect.

---

## 5) Responsibilities

## 5.1) President

The ACC President is responsible for ensuring adequate staff and funds are budgeted each year to provide support for this program, including funds for ventilation system design, engineering and/or administrative controls.

## 5.2) Vice-Presidents, Deans, Department Chairs, Directors, Managers, Supervisors and Instructors are responsible for:

- **5.2.1)** Ensuring any Faculty, Staff or students in their charge who are required to wear respirators are effectively trained and comply with this program. This includes not having facial hair that prevents the user from being able to get a good respirator seal.
- **5.2.2)** Ensuring ACC faculty, staff and/or students select, inspect, clean, maintain and store respirators as required by this program.
- *Note: Students provide their own respirator equipment and are required to meet these requirements (as approved by Environmental, Health, Safety & Insurance EHS&I).*
- **5.2.3)** Annually ensure that ACC faculty, staff and students who are required to wear respiratory protection have received the necessary medical clearance from a PLHCP.
  - Faculty and Staff will be authorized by EHS&I to wear a respirator as a function of their assigned duties.
  - *Note: Students need to present their instructor with a letter from a PLHCP stating they have been medically cleared to wear the required type of respirator before being allowed to fit test or use a respirator for class activities.*
- **5.2.3 [sic])** Ensuring faculty and staff who are required to wear respirator protection are scheduled, through EHS&I, for their annual medical evaluation and respirator fit test.
- *Note: Students provide written documentation of fit test certification. Student fit testing can be done by a competent individual during the class.*
- **5.2.4)** Ensuring that operating procedures state when and what type of respiratory protection is required.

## 5.3) ACC Project Managers and Coordinators

- **5.3.1)** Ensure their contractors are aware of and familiar with ACC's Contractor Safety Guidelines and Procedures;
- **5.3.2)** Review all contractor job assignments requiring respiratory protection with ACC EHS&I before work starts.

## 5.4) EHS&I Responsibilities

- **5.4.1)** Oversee and manage the respiratory protection program including:
  - Assessing the need for respiratory protection at ACC.
  - Lending assistance to Vice-Presidents, Deans, Department Chairs, Directors, Supervisors and Instructors in determining what tasks, activities, locations, etc., where respiratory protective equipment is necessary.
  - Selecting and documenting the types of respiratory protection to be used.
  - Ensure faculty and staff have adequate supply of proper respiratory protection available.

- Coordinating ACC faculty and staff medical evaluations, fit testing and training.
- Conduct periodic assessments of the program and training to assure its effectiveness. Develop corrective action plans, with the supervisor in charge, as needed to close gaps highlighted in the periodic assessments.
- Review training component of curriculum.
- **5.4.2)** Identify all engineering and administrative controls available to eliminate or reduce the need for respiratory protection.
- *Note: The ACC Environmental Health Safety and Insurance Department (EHS&I) will assist with these assessments as requested or deemed necessary.*
- **5.4.3)** Coordinate with PLHCP's by:
  - Providing the following information to the PLHCP prior to their recommendation to help the PLHCP make a recommendation concerning a faculty and staff's ability to use a respirator:
    - The type and weight of the respirator to be used by the faculty or staff;
    - The duration and frequency of respirator use (including use for rescue and escape);
    - The expected physical work effort;
    - Additional protective clothing and equipment to be worn; and
    - Temperature and humidity extremes that may be encountered.
  - Ensure that a follow-up medical examination is provided for a faculty or staff individual who gives a positive response to any question among questions 1 through 8 in Section 2, Part A of Appendix C of 29CFR 1910.134 or whose initial medical examination demonstrates the need for a follow-up medical examination.
  - Retaining written recommendations regarding the faculty, staff or student's ability to use the respirator from the PLHCP. The recommendations shall provide only the following information:
    - Any limitations on respirator use related to the medical condition of the faculty or staff, or relating to the workplace conditions in which the respirator will be used, including whether or not the faculty or staff is medically able to use the respirator;
    - The need, if any, for follow-up medical evaluations; and
    - A statement that the PLHCP has provided the faculty or staff with a copy of the PLHCP's written recommendation.
  - If the respirator is a negative pressure respirator and the PLHCP finds a medical condition that may place the faculty or staff's health at increased risk if the respirator is used, ACC shall provide a Powered Air Purifying Respirator (PAPR) if the PLHCP's medical evaluation finds that the faculty or staff can use such a respirator.
  - Request additional medical evaluations if:
    - A faculty or staff member reports medical signs or symptoms that are related to ability to use a respirator;
    - A PLHCP or supervisor informs the EHS&I that a faculty or staff member needs to be reevaluated;

- Information from the respiratory protection program, including observations made during fit testing and program evaluation, indicates a need for faculty or staff members reevaluation; or
    - A change occurs in workplace conditions (e.g., physical work effort, protective clothing, temperature) that may result in a substantial increase in the physiological burden placed on a member of faculty or staff.
  - Provide the PLHCP with a copy of the written respiratory protection program and a copy of 29CFR 1910.134 “Respiratory Protection”.
- **5.4.4)** Authorize faculty or staff as qualified to use respirator protection upon receipt of:
  - Written approval from a PLHCP,
  - Copies of medical history and physical exam,
  - Pulmonary function tests,
  - Successful fit test results;
  - Records of successful completion of respiratory protection training.

## 5.5) Respirator Users

- **5.5.1)** Comply with all requirements of this program.
- **5.5.2)** Use the training and recommended practices and procedures applicable to respirator use.
- **5.5.3)** Inspect, clean, maintain and store respirators according to this program and OSHA standards.
- **5.5.4)** Every 12 months, successfully:
  - Complete respirator training;
  - Pass a respirator medical fitness evaluation including a pulmonary function test;
  - Pass a respirator fit test.
  - *Note: Changes in a faculty or staff member’s or student’s physical condition (i.e. dental work, weight gain or loss, facial scarring, cosmetic surgery, etc.) that could impact a proper respirator fit may require additional fit testing.*

## 5.6) Contractors working for ACC

- **5.6.1)** Comply with ACC’s Contractor Safety Guidelines and Procedures and all applicable local, state, and federal requirements for respiratory protection;
- **5.6.2)** Upon request, provide copies of training data, medical certification date and fit testing information to ACC EHS&I for review.

---

## FAQ’s

### How do I become authorized to use a respirator at ACC?

To become authorized to use a respirator at ACC a faculty, staff or student must be approved by ESH&I. To become approved you must pass the following in this order:

1. A medical evaluation including a pulmonary function test
2. A respirator fit test

3. Training in the type(s) of respirators you will use and the situations where you will be expected to use them

Upon successfully passing the above, ESH&I will authorize you to use respiratory protection.

### **Medical Evaluation including a Pulmonary Function Test**

**Who must get a medical evaluation including a Pulmonary Function Test?** Anyone (faculty, staff or student) who is required to use a respirator must receive a medical evaluation to determine their ability to use a respirator prior to a fit test or using a respirator.

**Who conducts the medical evaluation?** The medical evaluation must be conducted by a PLHCP.

**What must be included in the medical evaluation?** The medical evaluation must include:

- The information required in Appendix C to Sec. 1910.134 of the OSHA General Industry standard.
- Pulmonary function test. (*Note: Failure to successfully pass this test disqualifies an individual from using a respirator*)

**How do I schedule a medical evaluation? \* ACC faculty or staff:** Contact EHS&I to schedule annual respirator physical appointments including a pulmonary function test.

- **Students:** Are responsible for scheduling appointments with a PLHCP and managing the medical requirements outlined in this procedure.
- *Note: Students must present a letter from a PLHCP stating that they are physically fit and able to use a respirator.*

### **Respirator Fit Test**

**What do I need to do before I schedule a respirator fit test?** To help ensure the safety of an individual, a successful medical evaluation is required before respirator fit testing is conducted.

**How often must I do a fit test?** Fit testing is an annual requirement and must be completed within each calendar year to maintain valid certification for respirator use. Fit testing procedures will comply with the OSHA General Industry standard Appendix A to 1910.134: Fit Testing Procedures.

**How do I schedule a respirator fit test: \* ACC faculty or staff:** Contact the EHS&I office to arrange for fit testing.

- **Students:** Are responsible to schedule a respirator fit test by a qualified individual.
- *Note: It is permissible that the fit test serves as a portion of their class curriculum, but must occur and be documented by qualified individual before they use respirator protection.*

### **Training**

**When do I receive initial training?** Training is required prior to initial use on the job/in class and at a minimum annual thereafter.

**How do I schedule training?** Supervisors should contact EHS&I who will in turn schedule respirator training classes. ACC Instructors are responsible for ensuring their students have received and are current in the training requirements.

*Note: At the instructors discretion student training can be incorporated into the class curriculum provided a copy of the training has first been reviewed and approved by EHS&I.*

**What topics must be covered in Training?** \* Why a respirator is necessary and how improper fit, usage or storage can compromise the protective effect of the respirator;

- Limitations and capabilities of their respirator;
- How to use the respirator effectively in emergency situations, including the situation where the respirator malfunctions;
- How to inspect, don and doff, use and check respirator seals;
- Procedures for respirator storage and maintenance;
- How to recognize the medical signs and symptoms that can limit or prevent effective respirator use;
- General requirements of the written program.

**When do I need retraining?** Retraining will occur annually and should any of the following situations arise:

- Changes in the workplace or the type of respirator used that renders the previous training obsolete;
- Noted inadequacies in the faculty or staff's knowledge or use of their respirator indicating the faculty or staff has not retained the requisite understanding or skill, or;
- Any other situation arises where retraining appears necessary to ensure safe respirator use.

**How do I obtain a respirator?**

- **Faculty or Staff:** Contact EHS&I to obtain a new respirator, face pieces or cartridges.
- **Students:** Must provide their own respirator.

**What type of respirators are approved at ACC?**

Full-face air purifying respirators are the preferred type of respirator to be used by ACC faculty, staff and students. ACC faculty, staff and students will not perform any work that requires an SCBA or a supplied air respirator. That work will be performed by contractors.

Dust masks (i.e., disposable) shall not be used without prior approval from EHS&I.

---

## **Selection, Use, Inspection, Cleaning, Maintenance, Storage**

**What are my responsibilities as a respirator user?**

All respirator users will:

- Select and use the appropriate respiratory protection for the tasks and conditions where they are performing work.
- Inspect respiratory protection immediately prior to use.

- Keep your respirator clean, sanitary and in good working order.
- Maintain and store respiratory protection to ensure effective use.

### **How do I select a respirator?**

EHS&I is responsible for the selection and approval of respirators based on the potential hazards to which the faculty, staff or student may be exposed and the job or tasks being performed.

EHS&I will assist instructors with selecting and approval of respirators for students enrolled in classes requiring respiratory protection.

### **How does ESH&I determine the potential hazards?**

Available air-monitoring data will be used in determining appropriate respirator selection and use.

### **What must be considered in a job or task evaluation?**

Job or task evaluation must include:

1. Possible airborne contaminants and their level of toxicity
2. Expected concentration levels
3. Warning properties
4. Skin absorption potential
5. Physical properties of the material
6. PEL or TLV for the material

### **What are the conditions of respirator use?**

- Respirators shall be used as intended by the manufacturer.
- Respirator users are only to use the type of respirator on which they have been trained and fit tested.
- Respirator users must perform a positive/negative seal check each time the respirator is donned.
- Respirator users are not permitted to have facial hair that interferes with the functioning of the valves of the face piece, or that extends into the seal area of the face piece prohibiting a proper seal. This includes side burns or a one day growth of beard.
- Absence of normally worn dentures, facial deformities or jewelry or head gear that projects under the face piece must be avoided.
- Regular eyeglasses cannot be worn with a full face respirator. Should a faculty or staff require corrective lenses they need to contact EHS&I.
- Situations where respirator use is required will have specific work procedures developed. Instructors who have class activities where respirator use is required must include written specifics and provide required information as to proper procedures through lecture and individual instructions.
- Air-purifying cartridge respirators are not to be used in oxygen deficient atmospheres where the percentage of oxygen is below 19.5%, or in atmospheres considered immediately dangerous to life and health. ACC faculty and staff are not permitted in oxygen deficient or immediately dangerous to life and health atmospheres.

### **Who is responsible to prevent unauthorized Respirator Use?**

Supervisors, and managers cannot allow any faculty and staff, and instructors cannot allow students:

- To use a respirator type that has not been reviewed and approved by EHS&I,
- To wear a respirator if training, fit testing, and medical clearance criteria have not been successfully completed or has expired.

### **Who will notify supervisors and managers about the names of authorized respirator users?**

EHS&I will notify supervisors and managers of faculty or staff in their charge who are authorized to use respirators, the types of respirators, and the dates of their required recertification.

### **Who is responsible for ensuring that students meet the standards of the Respiratory Protection program?**

Instructors are responsible for ensuring any students using respiratory protection in their classes have met the same standards outlined in this paragraph for faculty and staff.

### **When do I inspect my respirator?**

Each time before wearing a respirator, the user must inspect all face-pieces and other respirator-related equipment as described in the respirator training classes.

### **What do I inspect?**

The following items shall be inspected:

- **Face-piece:**
  - Cracks, tears or holes
  - Facemask distortion
  - Cracked or loose lens/face shield
- **Head straps:**
  - Breaks or tears
  - Broken buckle
- **Valves:**
  - Residue or dirt
  - Cracks or tears in valve material
- **Filters/Cartridges:**
  - Approval designation
  - Gaskets
  - Cracks or dents in housing
  - Proper cartridge for hazard

*Note: Respirator repair shall be performed by someone qualified by the manufacturer.*

### **How do I clean my respirator?**

To clean and sanitize respirators, use the manufacturer's recommendations or the following procedure:

### **Cleaning – Use the following procedures for cleaning and disinfecting respirators:**

- Disassemble respirator removing any filters, cartridges or canisters;
- Wash face-piece and associated parts in warm water using a mild detergent. DO NOT use organic solvents;
- Rinse completely in warm water;
- Wipe respirator with disinfecting wipes (70% isopropyl alcohol) to kill germs;
- Air-dry in a clean area;
- Re-assemble the respirator and replace any defective parts;
- Store in clean, dry plastic bag or other air tight container.

### **How do I correctly maintain my respirator?**

Respirators must be correctly maintained to ensure proper functioning and adequate protection for the user. Maintenance involves a thorough visual inspection for cleanliness and defects. Deteriorated or worn parts will be replaced before using. No components will be replaced or repairs made beyond those recommended by the manufacturer.

### **How do I properly store my respirator?**

Respirator users must store their respirator to protect it from dust, sunlight, heat, extreme cold, excessive moisture, or damaging chemicals. Respirators must be stored in such a manner that there is no distortion to the elastomer portion of the face piece.

Faculty or staff may store their assigned respirator and keep it in a sealable plastic bag labeled with their name. They are responsible for keeping the respirator identified and clean; Instructors shall ensure that students manage their respirators in a similar fashion.

### **What if I want to voluntarily use a respirator?**

Faculty, staff or students may voluntarily decide to use respirators even though it is not required by ACC. Those who voluntarily wear a respirator shall be provided with the information contained in Appendix D 1910.134 ("Information for Employees Using Respirators When Not Required Under the Standard"); and

- Get a Medical Evaluation to Use a Respirator and
- Properly select, use, inspect, clean, maintain and store the respirator.

### **What if I want to voluntarily use a dust mask?**

Those who decide to voluntarily use filtering facepieces (dust masks) are only required to review Appendix D of 1910.134.

### **How do we ensure the effectiveness of the respiratory protection program?**

EHS&I shall conduct program compliance assessments as necessary to ensure that the written respiratory protection program is being properly implemented.

EHS&I shall regularly consult faculty, staff and students required to use respirators to assess their views on program effectiveness and to identify any problems. Any problems that are identified during this assessment shall be corrected. Factors to be assessed include, but are not limited to:

- Respirator fit (including the ability to use the respirator without interfering with effective workplace performance);
- Appropriate respirator selection for the hazards to which the faculty or staff is exposed;
- Proper respirator use under the workplace conditions the faculty and staff encounters; and
- Proper respirator maintenance.

The findings and proposed corrective actions from this assessment shall report to ACC management.

---

## **Record-Keeping**

### **Who is responsible for maintaining records?**

EHS&I shall maintain all medical records, including physical evaluations and pulmonary function tests per ACC's Record Retention Policy.

EHS&I will maintain databases of all faculty and staff authorized to use a respirator. The database will include:

- Faculty or staff name/identification
- Medical certification date
- Fit-test date
- Type of fit test (quantitative or qualitative)
- Specific make, model, style, and size of respirator fit tested
- Type of respirator faculty or staff is authorized to wear
- Fit factor if quantitative fit test is administered
- Written copy of the respiratory protection program
- Records of completed training shall be maintained by EHS&I

### **Are records accessible to affected faculty or staff?**

Yes. Records are accessible to affected faculty or staff. Contact EHS&I.