

 <b>Portland Community College</b> <b>Health &amp; Safety Manual</b>	Dept: <b>Environmental Health &amp; Safety</b>	
	Topic: <b>Chapter 17 — Respiratory Protection Plan</b>	
	Board Policy: <b>B507</b>	Revised Date: <b>June 2024</b>

<b>Authority</b>	PCC Board Policy—B507
	Portland Community College is committed to providing a safe and healthy work and educational environment for employees, students and visitors.

<b>Summary</b>	This plan establishes procedures for the safe and effective use of respiratory protective equipment to protect the College’s employees from airborne contaminant exposures.
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## I. PURPOSE

Portland Community College (the College) endeavors to protect the health and safety of its employees. To that end, the College strives to reduce and prevent occupational illnesses due to exposure to recognized airborne contaminants by ensuring that those employees that are required to wear respiratory protection are properly trained, fit-tested and medically qualified to do so and know how to clean, inspect, store and use respirators effectively. This Plan (aka the Plan) also addresses the voluntary use of respiratory protection by employees. Specialized terms used in this chapter are defined in *Appendix A: Definitions*.

## II. AUTHORITY

PCC Board Policy – B507

OR OSHA Div. 2/I, *Personal Protective Equipment*, section 1910.134, *Respiratory Protection*

OR OSHA Div. 2/Z, *Toxic & Hazardous Substances*

## III. RESPONSIBILITY

**Management** –Managers, supervisors and deans (managers) are responsible to ensure that employees who are required to wear respiratory protection are part of the PCC Respiratory Protection Program. Program elements for which managers are responsible include:

- Identifying to Environmental Health & Safety (EH&S) workplace equipment and operations that may expose employees to concentrations of airborne contaminants above established regulatory thresholds or that may result in exposures to hazardous substances for which there is an established regulatory requirement for respiratory protection.
- Maintaining a list of their employees that are required to wear respiratory protection.
- Completing, processing, and filing all applicable forms associated with their employees' use of respiratory protection.
- Ensuring that employees who are required to wear respiratory protection receive annual training, are fit-tested at least annually and are medically qualified per the procedures in this Plan.
- Scheduling and paying for respirators and annual fit-testing services for applicable respirator users.
- Ensuring that employees who wear respiratory protection on a voluntary basis are medically qualified (required based on respirator type) and receive the required forms described in section IV.F. *Voluntary Use of Respiratory Protection*.
- Providing EH&S with the names of employees using respiratory protection, the type of use (required vs. voluntary), and the task performed using respiratory protection.
- Enforcing the procedures established in this chapter with respect to their employees' use of respiratory protection.

- Completing hazard assessments to determine what, if any, respiratory protection requirements should be followed by affected faculty or staff.

**Employees / Respirator Users** – Each employee who is required to wear respiratory protection for his or her job assignment is responsible for:

- Wearing an assigned, approved respirator, selected for the hazard(s) to which the employee is exposed.
- Completing and submitting required documentation described in this Plan to their management prior to using respiratory protection.
- Attending respiratory protection training annually (mandatory use only)
- Undergoing respirator fit-testing for each respiratory protective device they are required to use, at least annually (mandatory use only)
- Properly wearing respirators at all times when performing tasks identified as requiring respiratory protection.
- Regularly inspecting respirators prior to each use and replacing defective or missing parts/components, including valves, spectacle kits, filters and cartridges.
- Regularly cleaning and/or sanitizing assigned respirators.
- Maintaining facial hair, including stubble, such that it does not interfere with the sealing surface or the valve function of their respirator(s).
- Following all safety procedures outlined in this chapter, as established by OR OSHA rules and established by the manufacturer of their respiratory protective devices.
- Reporting problems with their assigned respirators to their management and/or EH&S.

**Environmental Health & Safety** – Oversees the College's *Respiratory Protection Plan* by:

- Establishing a Respiratory Protection Program Administrator.
- Developing and delivering district-wide Respiratory Protection training programs that comply with applicable OR OSHA regulations.
- Procuring occupational health services for respirator users, including medical evaluations and fit-testing.
- Coordinating medical evaluation services to employees and maintaining medical clearance records returned by the occupational health providers.
- Purchasing and maintaining stocks of respirators, including spare parts, cartridges and filters for new employees required to wear respiratory protection.
- Evaluating the College's written *Respiratory Protection Plan* regularly to ensure compliance with applicable OR OSHA regulations and documenting the evaluation.

## IV. PROCEDURES

### A. Respirator Selection

All respirators used must be approved by the National Institute of Occupational Safety and Health (NIOSH) for their selected use. Respirators are to be selected by their management based on the type of hazard associated with a task and the type of protection given by the respirator type.

The respirators shown in *Appendix B - Respirator Selection Table* have been chosen based on the type of hazard, level of exposure, the type of protection given by the selected respiratory protective equipment, and whether the task requires respiratory protection or may be performed with the voluntary use of respiratory protection.

A hazard assessment should be performed by the department manager for tasks where respiratory protection is either required or used voluntarily. The hazard assessment should be documented on *Form 1: Medical Clearance Request for Respiratory User* in that section marked “*Nature of Task(s) Performed*”. Managers, supervisors and deans should consult with EH&S should they have questions about the hazard assessment. Managers are also referred to *Reference Document i – Manager’s Guide to Respiratory Protection*.

Respirators come in a variety of types, makes, models and sizes. It is important to understand that there is no one make/model/size of respiratory protection that will fit every employee. The respirator and/or filters & cartridges that an employee will be issued and use will be based on the hazard assessment performed as well as the determination of the proper fit and comfort of the respirator based on fit-testing (see Section IV.C. *Respirator Fitting*).

The service life of each respirator cartridge will vary depending on the job duties and actual time in use. At a minimum, filtering facepieces are to be discarded after each work shift, whereas cartridges and filters may be used for up to 8 hours of cumulative use, spanning several shifts.

**B. Medical Evaluation** - Respiratory protective devices may place a physiological burden on an employee that varies depending on the type of respirator worn, the job and workplace conditions, under which the respirator is used, and the medical status of the employee. The College provides medical evaluations to each employee required to wear respiratory protection, prior to fit-testing and prior to the employee performing the job requiring the respirator. *Appendix C: Respiratory Program Element Chart*, shows the types of respiratory protective equipment that require a medical evaluation.

The College utilizes the services of various occupational health service providers for this function. These providers and their locations are listed in *Appendix D – Occupational Health Providers*.

Management should complete and sign *Form 1: Medical Clearance Request for Respirator Use*, from *Employee Information* to *Nature of Task(s) Performed*, for each employee required to wear respiratory protection and forward the signed original to EH&S. This form is also to be completed for each employee required to use respiratory protection on a voluntary basis when the required by *Appendix C: Respiratory Program Element Chart*.

Management should distribute *Form 2: OSHA Medical Evaluation Questionnaire* to each employee that is required to wear respiratory protection and to those employees voluntarily using respirator types requiring a medical evaluation (see Appendix C). Each employee required to wear respiratory protection must complete the following sections of Form 2:

- All employees must complete the following sections: Part A. Section 1 and Section 2, Questions 1 through 9.
- Employees selected to use either a full-face piece respirator or a self-contained breathing apparatus (SCBA) must complete Part A. Section 2, Questions 10 through 15. Employees selected to use other types of respiratory protection may opt to voluntarily answer these questions.
- The questions in Part B are not currently required by the occupational health providers but may be voluntarily answered by employees.
- Other questions, not listed on this form, may be added to the questionnaire at the discretion of the occupational health provider.

The completion of *Form 2: OSHA Medical Evaluation Questionnaire* should be accomplished prior to training and/or fit-testing. Once completed by the employee, the contents of the form are confidential and cannot be viewed by anyone other than the employee and the occupational health provider. The forms should be folded, inserted, and sealed in an envelope on which the employee's name is legibly written. These forms are submitted to the department manager, by the employee, only after sealing them in a self-addressed envelope with the employee's name legibly printed in the return address section.

Management will forward the sealed envelopes containing the completed medical evaluations to EH&S along with a copy of the completed *Form 1: Medical Clearance Request for Respirator Use*. EH&S will provide these forms to the occupational health provider for review and evaluation.

The occupational health provider will evaluate the employee's documentation and either approve it or require additional follow-up steps that must be taken prior to rendering a decision regarding the employee's respirator use. Additional requirements at the discretion of the medical health provider may include:

- Conducting an employee interview
- Requiring additional questions beyond those required by OR OSHA
- Conducting a follow-up medical examination which could involve testing, consultation and/or diagnostic procedures

After the evaluation, the occupational health provider returns a signed *Form 1: Medical Clearance Request for Respirator Use* to EH&S, noting any restrictions, explanations, and recommended renewal frequency for future medical evaluations. EH&S will provide

a copy of the signed Form 1 to the department manager. This process is also described in *Reference Document i – Manager’s Guide to Respiratory Protection*.

The employee is authorized to wear the respiratory protection noted on the returned Form 1 within the limitations of the respirator manufacturer or the requirements of the OR OSHA standard or the College’s written *Respiratory Protection Plan* so long as annual training and fit-testing have been completed.

### **C. Respirator Fitting**

It is critical that the selected respirator type fit the employee and be worn correctly if the employee is to derive any level of protection against airborne contaminants to which they may be exposed in the course of performing their job. The proper fit of a respirator is essential to achieve the rated state of protection and respirator fit-testing is used to determine which make, model and size of a respirator type offers the best fit to the employee.

Fit-testing, at least annually, is required of all respirator users and department managers should contact one of the facilities listed in *Appendix D: Occupational Health Providers* to schedule fit-testing for their employees.

Management should complete the top portion of *Form 3: Respirator Assignment and Fit Record* for each employee to be fit-tested. Form 3 should then accompany the employee to the selected occupational health provider completing the fit-test. Upon completing the fit-test, the occupational health provider will complete and sign the remainder of the form and obtain the signature of the employee undergoing fit-testing.

EH&S will conduct fit-testing of new respirator users that are designated by their managers as requiring respiratory protection. In such cases, department managers should complete Form 3 (as described above) and send it along with the employee to be fit-tested to EH&S at an agreed upon date and location.

The following points must be adhered to by the using employee in order for respirators to offer adequate protection against airborne contaminants:

- Facial hair that impacts either the seal of a respirator, or the performance of a respirator’s inhalation or exhalation valves, is not allowed. An employee with such facial hair, and/or stubble, will not be fit-tested and will be asked to return for fit-testing once the facial hair in question is removed. Such facial hair voids the user’s authorization to use respiratory protection unless the use is documented as voluntary.
- The respirator’s facepiece must be properly positioned by the user; the chin is placed in the chin cup and the facepiece is positioned such that it is comfortable for the user.

- The head straps on a respirator must be used and positioned properly, as shown in the manufacturer's instructions. Straps and headbands should be adjusted so that they are tight, yet comfortable.
- The user performs the required seal checks on their respirator. Such seal checks are covered in annual respirator training and are described in literature accompanying new respirators. A negative pressure test is performed by covering the filters/cartridges with the palms of one's hands and inhaling. The user is instructed to listen and feel for air leaking through the respirator's sealing surface while they inhale and hold their breath. A positive pressure test involves the user covering the exhalation valve cover of his or her respirator with his/her palm and gently exhaling. The user is instructed to listen and feel for air leaking out of the mask by any other route than the exhalation valve.

PCC's occupational health providers, as well as EH&S, conduct qualitative fit-testing in accordance with the OR-OSHA Respiratory Protection standard, which yields either a pass or fail result. Qualitative fit-testing may include use of Bitrex, saccharin, banana oil, or irritant smoke. A failed test will result in attempts by the person performing the test to work with the employee being tested to make mask/strap adjustments, reseating cartridges/filters, or changing the size, make or model of a respirator until a passing result is achieved. In some cases, an employee selected to wear one type of respiratory protection will be upgraded to another to achieve the desired result and level of protection.

Every employee required to wear respiratory protection must undergo annual fit-testing at a minimum. More frequent fit-testing is required when an employee experiences weight gain/loss, changes to their facial structure, swelling, dental procedures, etc. Employees needing such periodic fit-testing based on any changes described above should request such fit-testing from their manager. *Reference Document i – Manager's Guide to Respiratory Protection* summarizes the steps involved with fit-testing.

#### **D. Respirator Use & Emergency Use**

All instructions provided by the respirator manufacturer regarding proper use must be read and followed and the user must also read and heed limitations established by the manufacturer of his or her respirator:

- Users must perform the required seal checks on their respirator each and every time they don the respirator or break the sealing surface between their face and the respirator's facepiece. The required seal checks are described in Section IV.C: *Respirator Fitting*.
- A respirator is not to be worn into atmospheres containing airborne contaminants if the respirator is not rated for the particular contaminants present or for concentrations above the respirator's Maximum Use Concentration.

- Air purifying respirators are not to be worn into atmospheres that are Immediately Dangerous to Life and Health (IDLH) nor are they allowed to be worn in confined spaces where an atmosphere may be less than 19.5% oxygen.
- The instructors in the Fire Protection Technology program are the only College employees authorized to wear self-contained breathing apparatus (SCBA). The Fire Protection Technology program maintains its own written Respiratory Protection Program for both the instructors' use and that of the students. Instructors have to provide current records of medical evaluation to the department or take part in the College's medical evaluation procedures listed in this plan. The Fire Protection Technology program has written procedures, proof of Grade D air and records of all maintenance, inspection and training for Fire Technology Program instructional related activities
- The College does not recognize any of its employees as emergency responders that would be required to wear respiratory protection should an emergency arise, except the members of the EH&S department responding to small chemical spills
- Employees who experience breathing difficulties, dizziness, distress, irritation, chemical tastes and smells while wearing a respirator are to immediately leave the area and seek fresh air. The manager must be notified and investigate the reasons for these issues.
- Respirator users must return College owned and provided respirators to their manager if they no longer have job tasks that require the use of a respirator or when they no longer work at the College.

#### **E. Respirator Maintenance, Inspection & Storage**

Each employee that is assigned a respirator shall be responsible for routinely cleaning, inspecting, maintaining and storing it. Respirator inspections shall be conducted before and after each use with the objective of ensuring the proper fit and function of the respirator and its various components. Information regarding routine respirator cleaning and storage can be found on *Form 4: Cleaning & Storage*.

If during the course of a respirator inspection, the employee performing the inspection finds that the respirator has either missing or malfunctioning components, the employee is to notify their manager and request the necessary replacement parts or a new respirator. Employees are not to use respirators that have worn or missing components. Additionally, employees are not to mix and match parts from one respirator make and model with that of another make and model.

Respirators shall be stored in an appropriate plastic bag or closed container, labeled with the employee's name, and provided by the College after the respirator has been cleaned, inspected and dried. Cartridges and filters that have been removed from their original containers shall be stored in sealed plastic bags and labeled with the user's name. Respirators, cartridges and filters shall be stored outside of the environment containing the airborne contaminants in a sanitary manner and in such a way that they are not subject to being deformed.



## F. Voluntary Use of Respiratory Protection

Employees may opt to wear respiratory protection when performing assigned tasks even though respiratory protection is not required by the College or by any OR OSHA standard, e.g., when the employee chooses to wear a respirator for reasons of comfort. When employees voluntarily use respiratory protection, the following requirements apply:

- The employee should notify their management of their use of voluntary respiratory protection.
- Management should complete *Form 1: Medical Clearance Request* and schedule a medical evaluation based upon the respiratory protection selected (ref. *Appendix C: Respirator Program Element Chart* and *Reference Document i -Manager's Guide to Respiratory Protection*).
- The employee should complete *Form 2: OSHA Medical Evaluation Questionnaire* (ref. section IV. B of this Plan) based upon the respiratory protection selected (ref. App C. and Ref Doc i).
- The task for which the employee opts to voluntarily wear respiratory protection must be documented in the College's written *Respiratory Protection Plan* (ref. *Appendix B: Respirator Selection Table*, or on file with EH&S).
- The employee must receive instructions regarding the inspection, maintenance, cleaning and storage of the respirator from their management. These instructions are summarized on *Form 4: Cleaning & Storage*.
- The employee must receive a copy of *Appendix E: Respirator Voluntary Use*, from their management.

Employees voluntarily using respiratory protection are not subject to the OR OSHA training or fit-testing requirements. Employees wishing to be fit-tested are encouraged to contact their manager.

If an employee opts to voluntarily wear a filtering facepiece, aka a dust mask, and this is the only respiratory protective device the employee will wear, the employee is not required to undergo the medical evaluation or have the work task documented in the College's written Respiratory Protection Plan. Should the same employee voluntarily wear other respiratory protective equipment, such as an elastomeric negative pressure mask when performing other tasks, the employee will be subject to these two requirements.

Employees that voluntarily wear respiratory protection are permitted to use air-purifying respirators supplied by their management, EH&S or use personally owned air-purifying respirators. Note – PCC is not required to purchase or supply respiratory protection for employees using such equipment on a voluntary basis. Regardless of ownership, all air-purifying respirators used voluntarily must be approved by NIOSH. PCC does not allow for the voluntary use of atmosphere-supplying respirators.

Employees voluntarily using respiratory protection are not subject to the OR OSHA facial hair requirements with which mandatory users must comply. However, EH&S reserves the right to confiscate College-owned respiratory equipment used voluntarily when it is used by

an individual with facial hair. Situations involving voluntary use of College-owned equipment when employees have facial hair will be discussed with the employee's manager and actions taken may vary and will be handled on a case-by-case basis.

### **G. Respiratory Protection Plan Evaluation**

EH&S will conduct periodic evaluations of this plan in order to ensure that the College protects employee health and maintains compliance with OR OSHA's regulations. The evaluation will consist of:

- Unscheduled observations throughout the year of employee respirator use during job operations requiring respiratory protection.
- Observation and discussion of the *Respiratory Protection Plan* with new employees and those observed not following established procedures.
- Periodic discussions of respirator use procedures during safety meetings.
- An annual review of OR OSHA's Respiratory Protection Standard.

This evaluation will be recorded on *Form 5: Plan Evaluation Checklist*.

## **V. TRAINING**

Each College employee who is required to wear a respirator will receive annual district-wide training on the following topics, required by OR OSHA:

- OR-OSHA's Respiratory Protection Standard, i.e., 1910.134
- PCC's written Respiratory Protection Plan
- Respiratory hazards and their health effects
- Selection and use of respirators
- Donning respirators and performing required seal checks
- Limitations of respirators
- Fit-testing of respirators
- Emergency procedures (if applicable)
- Maintenance and storage of respiratory protection
- Medical signs and symptoms that limit the use of respirators

Departments such as Fire Protection Technology and Automotive Collision use atmosphere-supplying respirators and must develop specialized training on the use and inspection of their respiratory equipment as well their breathing air delivery systems and compressors that deliver Grade D air to the respirator users.

## VI.RECORDKEEPING

EH&S maintains copies of periodic *Respiratory Protection Plan* evaluations.

Training records for district-wide training on the subject of respiratory protection are maintained in PCC's Learning Management System on the MyCareer@PCC webpage.

Department managers, supervisor and deans maintain copies of the following:

- Fit-test records, showing the date of testing, and the specific respirator make, model and size fitted for each employee.
- Medical evaluations for each affected employee, signed by an approved occupational health provider.
- Documentation that employees have received instructions on cleaning and storage.
- Documentation that applicable employees have received guidance regarding the voluntary use of respirators.
- Any departmental training records on the topic of respiratory protection.

All records are to be retained by the applicable departments for the duration established by the Oregon State Archives in conjunction with government regulations.