

RESPIRATORY PROTECTION PROGRAM

FOR VOLUNTARY USERS

POLICY

It is the policy of Whitworth University to support the protection of employees from respiratory injuries as a result of working with harmful dusts, fumes, gases, vapors, and other hazardous airborne substances, and to promote respiratory safety. The University's consultation with Washington State Labor and Industry has determined that no hazard exists in the workplace which would require the use of a respirator. This program applies to all employees who voluntarily choose to wear air-purifying respirators and filtering-face piece respirators during the course of their work.

RESPONSIBILITIES

Supervisors: Supervisors will ensure that their employees have undergone a medical evaluation, passed a fit test, and received the appropriate training before being allowed to use an air-purifying respirator in the workplace. Supervisors will also ensure the availability of appropriate respirators and accessories, provide adequate storage facilities, and encourage proper respirator equipment maintenance.

Safety Manager (Program Administrator): The Safety Manager/designee will be responsible for providing training, maintaining records, conducting fit tests for employees, and maintaining the written respiratory protection program. He/she will also be responsible for addressing unsafe situations with the employee's supervisor, or in the case of an emergency, addressing the situation directly with the employee and notifying the supervisor in a timely manner following the emergency.

Respirator Wearers: The respirator wearer will be responsible for wearing his/her respirator in the manner in which he or she was trained. The respirator wearer must maintain proper fit requirements and report any malfunctions of the respirator to his/her supervisor immediately. The respirator wearer must also guard against mechanical damage to the respirator, clean the respirator as instructed, and store the respirator in a clean, sanitary location.

MEDICAL EVALUATIONS AND FIT TESTING

1. Medical Evaluations

An employee who voluntarily wears an air-purifying respirator will be required to complete a medical evaluation by a licensed health care professional (LHCP) prior to using a respirator in the workplace. Medical evaluations will be administered at no cost to the employee and strict confidentiality will be maintained throughout the evaluation process. All medical evaluations will be conducted during the employee's normal working hours or at a time and place that's convenient to the employee.

2. Fit Testing

A fit test shall be used to determine the ability of each individual respirator wearer to obtain a satisfactory fit with the respirator they will be assigned to wear. Employees must successfully pass the fit test before being issued an air-purifying respirator.

No employee will be permitted to wear an air-purifying respirator in a work situation until he or she has demonstrated that an acceptable fit can be obtained. Respirator fitting will be conducted before voluntary use of a respirator conflicts with this policy. Refitting will be conducted annually thereafter.

Fit testing will be conducted by the Safety Manager/designee, and the test results will be used to select the type, model, and size of the air-purifying respirator for use by each employee.

Qualitative fit tests

Whitworth University will perform qualitative fit tests using an irritant smoke. The irritant smoke test is an involuntary response test. Respirators used during the testing must be equipped with a high efficiency particulate air (HEPA) filter. An irritant smoke, usually either stannic chloride or titanium tetrachloride, is directed from a smoke tube toward the respirator. If the test subject does not respond to the irritant smoke, a satisfactory fit is assumed to be achieved. Any response to the smoke indicates an unsatisfactory fit.

The University will also have amyl acetate (banana oil) as an alternative testing media. All requests to be tested using this alternative method must be made at least one week in advance of the fit testing.

3. Fit Checking

Each time an air-purifying respirator is worn, the user will perform positive and negative pressure fit checks. These checks are not a substitute for fit testing. Respirator users must be properly trained in the performance of these checks and understand their limitations.

Negative Pressure Check

Close off the inlet opening of the respirator's canister(s), cartridge(s), or filter(s) with the palm of the hand, or squeeze the breathing air tube or block its inlet so that it will not allow the passage of air. Inhale gently and hold for at least 10 seconds. If the face piece collapses slightly and no inward leakage of air into the face piece is detected, it can be reasonably assumed that the respirator has been properly positioned and the exhalation valve and face piece are not leaking.

Positive Pressure Check

Close off the exhalation valve or the breathing tube with the palm of the hand. Exhale gently. If the respirator has been properly positioned, a slight positive pressure will build up inside the face piece without detection of any outward air leak between the sealing surface of the face piece and the face.

4. Special Problems

Facial Hair

No attempt will be made to fit a respirator on an employee who has facial hair which comes between the sealing periphery of the face piece and the face, or if facial hair interferes with normal functioning of the exhalation valve of the respirator. An employee who is approved to wear a respirator must maintain facial hair in a manner that does not prevent the proper seal of the respirator; failure to do so will prevent the employee from being able to wear the respirator.

Glasses and Eye/Face Protective Devices

Proper fitting of a full-face respiratory protective device for individuals wearing corrective eyeglasses or goggles, may not be established if temple bars or straps extend through the sealing edge of the face piece. If eyeglasses, goggles, face shield or welding helmet must be worn with a respirator, they must be worn so as not to adversely affect the seal of the face piece.

SELECTION AND USE OF RESPIRATORS

1. Mandatory Information

Each employee who voluntarily uses a respirator or dust mask must be provided with a copy of the advisory information contained in Table 2, found in WAC 296-842-11005. Table 2 is also included at the end of this policy. If non-English speaking employees are included, Whitworth will have the document translated or have an interpreter read the information.

2. Voluntary Use

Air-Purifying Respirators

Employees must receive approval from their supervisor and be trained in Whitworth's respiratory protection program. This shall occur before an employee is authorized to voluntarily wear an air-purifying respirator. Once an employee has met the requirements of the respiratory protection program, he or she may choose to wear the Whitworth-issued respirator during regular work. Respirator users shall be responsible for abiding by all of the standards outlined in the voluntary respiratory protection program.

Dust Masks

Voluntary use of filtering face-piece respirators, also known as dust masks, are exempt from the written respiratory requirements, medical evaluations, fit testing, cleaning, storage, and maintenance requirements.

3. Selection of Respirators

The Safety Manager will ensure that the respirator selection is appropriate for its intended use and contaminant.

4. Issuing Air-Purifying Respirators

Air-purifying respirators shall not be issued to any employee unless the respirator wearer has completed a medical evaluation, received respirator training, and completed a fit test. New employees who would like to be issued an air-purifying respirator must also complete these steps before being issued respiratory protective equipment. Respirators shall only be issued by Whitworth's Safety Manager/designee in accordance with the requirements outlined by the respiratory protection program. Replacement respirators must be approved by the Safety Manager/designee. Only respirators issued by Whitworth will be permitted for use by employees while conducting University business.

TRAINING

Respirator users and their supervisors will receive training on the contents of Whitworth University's voluntary respiratory protection program and their responsibilities under it.

The Safety Manager/designee will provide training for respirator wearers in the use, maintenance, capabilities, and limitations of respirators. This training will take place prior to employees being issued an air-purifying respirator. Retraining will be given annually thereafter.

The training program will include the following:

- The nature and degree of respiratory hazards;
- How to properly select a respirator based on the capabilities and limitations of the respirator;
- Instructions for putting on, fitting, testing and wearing the respirator;
- Instructions for inspecting, cleaning, and maintaining the respirator;
- An explanation of dangers related to misuse;
- The use and limitations of respirators; *and*
- The service life of respirator cartridges.

Respirator training records will be created and maintained by the Safety Manager/designee in conjunction with department supervisors, and will include the type and model of respirator for which the individual has been trained and fit-tested.

RESPIRATOR MAINTENANCE AND STORAGE

1. Maintenance

The maintenance of respiratory protective devices involves a thorough visual inspection for cleanliness and defects (i.e., cracking rubber, deterioration of straps, defective exhalation and inhalation valves, broken or cracked lenses, etc.). Worn or deteriorated parts will be replaced prior to reissue. Respirators with known defects will not be reissued for use. No attempt will be made to replace components, make adjustments or make repairs on any respirator beyond those recommended by the manufacturer. Under no circumstances will parts be substituted, as such substitutions will invalidate the approval of the respirator. Only the manufacturer and qualified technicians will be allowed to conduct repairs.

2. Cleaning of Respirators

All respirators in routine use shall be cleaned and sanitized on a periodic basis. Respirators used non-routinely shall be cleaned and sanitized after each use and filters and cartridges replaced when necessary. Routinely used respirators will be maintained individually by the respirator wearer. Replacement cartridges and filters can be obtained by contacting the Purchasing and Warehouse Manager.

Cleaning and disinfection of respirators must be done frequently to ensure that skin-penetrating and dermatitis-causing contaminants are removed from the respirator surface. Respirators maintained for emergency use or those used by more than one person must be cleaned after each use by the user.

The following procedure is recommended for cleaning and disinfecting respirators:

- a. Remove and discard all used filters, cartridges, or canisters.
- b. Wash face piece and breathing tube in a cleaner-disinfectant solution. A hand brush may be used to remove dirt. Solvents, which can degrade rubber and other parts, shall not be used.
- c. Rinse completely in clean, warm water.
- d. Air-dry in a clean area in such a way as to prevent distortion.
- e. Clean other respirator parts as recommended by the manufacturer.
- f. Inspect valves, head straps, and other parts to ensure proper working condition.
- g. Reassemble respirator and replace any defective parts.
- h. Place in a clean, dry plastic bag or other suitable container for storage after each cleaning and disinfection.

3. Storage

After inspection, cleaning, and any necessary minor repairs, store respirators to protect against sunlight, heat, extreme cold and excessive moisture, damaging chemicals or other contaminants. Routinely used respirators, such as half-mask or full-face air-purifying respirators, shall be placed in sealable bags or containers. Respirators may be stored in such places as lockers or toolboxes only if they are first placed in carrying cases or containers. Respirators shall be packed or stored so that the face piece and exhalation valves will rest in a normal position and not be crushed. Emergency use respirators shall be stored in a sturdy compartment that is quickly accessible and clearly marked.

4. Cartridge Change Out

The canisters or cartridges of air-purifying respirators are intended to be used until filter resistance precludes further use, or the chemical sorbent is expended as signified by a specific warning property, e.g., odor, taste, etc. New canisters, cartridges or filters shall always be provided when a respirator is reissued. When in doubt about the previous use of the respirator, obtain a replacement canister or cartridge. Dust masks are considered disposable filtering respirators and should be discarded after each use.

To the extent possible, employees will follow all change out schedules provided by the manufacturer and/or those developed internally; through testing of the environment respirator wearers are exposed. New cartridges should be marked with the date they were first installed on the mask.

RECORDKEEPING

All records for the respiratory protection program shall be kept and maintained by the Safety Manager/designee. This may include but is not limited to, medical authorizations, fit testing records, training records, etc.

PROGRAM EVALUATION

The voluntary respiratory protection program will be evaluated at least annually by the Safety Manager/designee to ensure it is effective in practice and that it complies with all applicable regulations.

DEFINITIONS

Air-purifying respirator (APR): A respirator equipped with an air-purifying element such as a filter, cartridge, or canister. The element of the filter is designed to remove specific contaminants, such as particles, vapors, or gases, from air that passes through it.

Canister or cartridge (air-purifying): Part of an air-purifying respirator that consists of a container holding materials such as fiber, treated charcoal, or a combination of the two, that removes contaminants from the air passing through the cartridge or canister.

Dust mask: A name used to refer to filtering-face piece respirators. Dust masks may or may not be NIOSH certified.

Filter: A fibrous material that removes dust, spray, mist, fume, fog, smoke particles, **OR** other aerosols from the air.

Filtering-face piece respirator (dust mask): A particulate respirator with the face piece mainly composed of filter material. These respirators do not use cartridges or canisters and may have sealing surfaces composed of rubber, silicone or other plastic-like materials. They are commonly referred to as “dust masks.”

Fit test: An activity where the face piece seal of a respirator is challenged; using a DOSH accepted procedure, to determine if the respirator provides an adequate seal.

Full-face piece respirator: A tight-fitting respirator that covers the wearer's nose, mouth, and eyes.

Half-face piece respirator: A tight-fitting respirator that only covers the wearer's nose and mouth.

High-efficiency particulate air filter (HEPA): A powered air-purifying respirator (PAPR) filter that removes at least 99.97% of monodisperse dioctyl phthalate (DOP) particles with a mean particle diameter of 0.3 micrometer from contaminated air.

Licensed health care professional (LHCP): An individual whose legally permitted scope of medical practice allows him or her to provide some or all of the health care services required for respirator users' medical evaluations.

Permissible exposure limits (PELs): Employee exposures levels to toxic substances or harmful agents that must not be exceeded. PELs are specified in applicable DOSH chapters.

Service-life: The period of time that a respirator, filter or sorbent, or other respiratory equipment provides adequate protection to the wearer. For example, the period of time that sorbent cartridge is effective for removing a harmful substance from the air.

REFERENCES

WAC 296-842-100 through 22020

If you have questions regarding Whitworth University's respiratory protection program please contact the University's Safety Manager in the Human Resources office at 777-3236.

Approved By: Gerald Gemmill **Date:** 3/10/2015

APPENDIX

Table 2 Advisory Information for Employees Who Voluntarily Use Respirators
<ul style="list-style-type: none"> • Respirators protect against airborne hazards when properly selected and used. Respirator usage that is required by DOSH or your employer is not voluntary use. With required use, your employer will need to provide further training and meet additional requirements in this chapter. DOSH recommends voluntary use of respirators when exposure to substances is below. DOSH permissible exposure limits (PELs) because respirators can provide you an additional level of comfort and protection. • If you choose to voluntarily use a respirator (whether it is provided by you or your employer) be aware that respirators can create hazards for you, the user. You can avoid these hazards if you know how to use your respirator properly AND how to keep it clean. Take these steps: <ul style="list-style-type: none"> – Read and follow all instructions provided by the manufacturer about use, maintenance (cleaning and care), and warnings regarding the respirator's limitations. – Choose respirators that have been certified for use to protect against the substance of concern. The National Institute for Occupational Safety and Health (NIOSH) certifies respirators. If a respirator is not certified by NIOSH, you have no guarantee that it meets minimum design and performance standards for workplace use. <ul style="list-style-type: none"> ▪ NIOSH approval label will appear on or in the respirator packaging. It will tell you what protection the respirator provides. – Keep track of your respirator so you do not mistakenly use someone else's. – DO NOT wear your respirator into: <ul style="list-style-type: none"> ▪ Required use situations when you are only allowed voluntary use. ▪ Atmospheres containing hazards that your respirator is not designed to protect against.
<p>For example, a respirator designed to filter dust particles will not protect you against solvent vapor, smoke or oxygen deficiency.</p>