



Introduction

It is the policy of Western University of Health Sciences (WesternU) to provide a safe and healthful work environment in compliance with all Local, State and Federal standards. WesternU shall inform employees of the potential inhalation exposures to hazardous materials whenever possible. When it has been determined that elimination of an inhalation hazard is not possible, each department shall incorporate and implement all applicable components of the WesternU Respiratory Protection Program (RPP) to reduce the risk of respiratory exposure.

WesternU has made a commitment to implement and maintain a respiratory protection program for the protection of employees. Respirators shall be used as the principal means of control only in situations where neither hazard elimination, nor engineering controls are feasible.

The following document details the steps WesternU is taking to accomplish a suitable Respiratory Protection Program.

Purpose

Western University of Health Sciences (WesternU) is committed to maintaining a safe environment for its employees, students, and guests. In accordance with the regulatory requirements of the Occupational Safety and Health Administration's (OSHA) Standard for Respiratory Protection [29 CFR 1910.134] and the Cal/OSHA requirement (California Code of Regulation, Title 8, Section 5144). The Respiratory Protection Program (RPP) at WesternU is intended to protect employees through establishing accepted practices for respirator use, providing guidelines for training and respirator selection, and explaining proper storage, use and care of respirators.

- Identifies the Person(s) responsible for implementation and maintenance of the program.
- Evaluate respiratory hazards in order to select appropriate respiratory protection.
- Ensure employees are medically able to wear respirators.
- Fit test employees with appropriate respirators.
- Establish procedures to ensure employees properly care for maintain their respirators.
- Ensure high-quality breathing air is supplied for the air-supplying respirators.
- Conduct continuing respirator training.

Scope

This written program applies to any employee who is required to wear a respirator during normal work activities or academic operations. A respirator is considered required if;

- A hazard assessment indicates an inhalation hazard exists that requires respiratory protection, or
- A job description or a standard or emergency operating procedure requires a respirator to be worn.

Any respirator use that does not meet either of these criteria is designated as voluntary use. Voluntary use of any filtering facepiece respirator does not need to meet any requirements of the RPP. However, it is recommended that any use of a respirator be reviewed by the Department of Environmental Health & Safety (EH&S). Additionally, voluntary users of tight-fitting, full or half face respirators must be reviewed by EH&S; and meet program requirements for medical evaluations. Voluntary users of these respirators must also understand how to clean, store, and maintain the respirator to ensure it does not present a health hazard to the user. Voluntary use of any other type of respirator is not permitted.

The RPP also covers the emergency use of respirators.

The RPP does not apply to any contractors required to wear respirators as part of work performed on WesternU property. The contractor's employees shall be enrolled in the contractor's own written respiratory protection program in accordance with OSHA standard 29 CFR 1910.134 or other applicable state or federal regulations.

Responsibilities

The University Chief Operating Officer (COO) is ultimately responsible for the effective implementation of the University's Environmental Health & Safety (EH&S) programs, including the

RPP at all facilities under WesternU control. General policies, which govern the activities and responsibilities of the EH&S program, are established under the authority of the COO.

Program Administrator

As designated by the COO, the individual with responsibility for implementing the RPP is the Executive Director of University Compliance or designee, hereafter referred to as the Program Administrator. The Program Administrator has the authority to implement all provisions of this program. The Program Administrator's duties include:

- Reviewing and updating the written Respiratory Protection Program as needed.
- Identifying and evaluating respiratory risks or hazards in work areas and processes or tasks that require employees to wear respirators.
- Providing guidance in the selection and purchase of approved respiratory protection options.
- Monitoring respirator use to ensure respirators are used in accordance with their certifications.
- Arranging for and/or conducting training.
- Ensuring proper storage and maintenance of respiratory protection equipment.
- Providing a fit testing program for respirator users.
- Administering the medical surveillance program.
- Maintaining records on respiratory protective equipment assignments, fit testing and training.
- Reviewing and updating the written program as needed and evaluating the overall effectiveness of the program.

Department Heads, Supervisors and Principal Investigators (PI)

These personnel have the primary responsibility for ensuring that the program is implemented in their particular areas of responsibility. They must be knowledgeable of the program contents and requirements and enforce implementation of the program. Their specific duties include:

- Being aware of tasks requiring the use of respirators.
- Ensuring that employees and students under their supervision who require respiratory protection have received proper training, annual fit testing, have completed the Respirator Use Annual Questionnaire (Appendix A) and medical evaluation.
- Ensuring the availability of appropriate respirators and accessories.
- Enforcing the proper use of respiratory protection.
- Ensuring that the respirators and associated equipment are properly cleaned, maintained and stored.
- Ensure that respiratory protection fits properly.
- Continually monitor work areas and operations to identify respiratory hazards.
- Identifying changes in jobs or tasks which may require re-evaluation of the respirator use and notifying EH&S.
- Coordinating with EH&S on how to properly address respiratory hazards or other concerns regarding the program.

Respirator User

The respirator user is responsible for following the requirements of the written program. This involves:

- Inspecting the respirator before and after each use.
- Using the respirator in accordance with the manufacturer's instructions and the training received.
- Storing, cleaning, maintaining, and guarding against damage to the respirator.
- Reporting any malfunction of the respirator to his/her supervisor.
- Promptly reporting to his/her supervisor any symptoms of illness that may be related to respirator usage or exposure to hazardous atmospheres.
- Informing the supervisor of operation changes or health status changes (e.g., dental work, weight gain or loss of 10 lbs. or more, facial scarring, cosmetic surgery, etc.) that could affect the safe use of the equipment

Every 12 months, successfully:

- Complete respirator training;
- Complete the Respirator Use Annual Questionnaire (Appendix A) and fit test

Occupational Health Provider or other licensed health care professional

The healthcare provider is responsible for:

- Performing initial and periodic medical evaluations and any necessary follow-up examinations of employees and students to determine their ability to wear a respirator.
- Providing a written evaluation of the employee's ability to use a respirator to Program Administrator, or designee in EH&S.
- Conducting periodic medical evaluation of respirator users as necessary.

Respirator Selection

Respirators will be worn when the following conditions apply:

- EH&S, with assistance from the employee's supervisor, has identified and evaluated respiratory hazards and determines the need for respiratory protection based on quantitative exposure assessments or a reasonable estimate of the employee's exposure to respiratory hazard(s) given the contaminant's chemical state and physical form.
- Employees are working in areas where contaminant levels may become unsafe without warning, such as in emergency response situations to an unknown spill of hazardous material. In these situations where exposures cannot be identified or reasonably estimated, the work area shall be considered immediately dangerous to life or health (IDLH). These IDLH atmospheres require air-supplied respirators along with specialized training (See Appendix B Procedures for Use of Supplied Air Respirators in IDLH Atmospheres).
- The Safety Data Sheet (SDS) or chemical label specifically requires the use of a respirator for the task being performed.

- Significant levels of infectious biological contaminants may become aerosolized. The University Biosafety Officer will determine the appropriate level of respiratory protection that may be required when working with these materials.
- Healthcare personnel performing high hazard procedures on patients, cadavers or in a laboratory that may generate an infectious aerosol are required to wear at least an N95 respirator and to comply with the appropriate sections of this policy.
- Employees are engaged in activities that are addressed in other EH&S policies such as asbestos, certain other chemical, biological, or radiological hazards, or for confined space entry, which require the use of respiratory protection.
- Only respirators approved by the National Institute for Occupational Safety and Health (NIOSH), under the provisions of 30 CFR Part 11 and 42 CFR Part 84, shall be used at WesternU. Since respirators are approved as a unit, parts from different manufacturers or models shall not be interchanged, and no modification of a respirator is permitted.
- Employees who have facial hair that comes between the sealing surface of the facepiece and the face or that interferes with valve function must not wear tight-fitting facepiece respirators. Respirators that do not rely on a tight face seal, such as hoods or helmets, may be used by bearded individuals when appropriate to the hazard presented.
- Each department is responsible for providing respirators, replacement parts, and cartridge/filters as necessary to employees who have been identified as needing respirators. Tight fitting respirators manufactured by North, 3M or Scott should be used. If any other manufacturers product is being considered, consultation with EH&S is required before the respirator can be used.
- Voluntary use of tight-fitting half and full-face respirators must be reviewed by EH&S to ensure proper use, including cartridge selection is made.
- Voluntary use of filtering facepiece respirators (dust mask) does not require an EH&S assessment. However, EH&S must be informed of the intended use in order to provide the information in the OSHA Standard on Respiratory Protection, 29 CFR 1910.134, Appendix C to the user.

For a more detailed explanation of the respirator selection process, review the Respirator Selection Guidelines (Appendix D), or call EH&S at 909-469-8231 (ext. 8231).

Medical Evaluation

Those employees who are required to wear respiratory protection, or those who choose to voluntarily wear an air purifying respirator (APR), must pass a medical examination before being permitted to wear a respirator on the job. Employees are not permitted to wear the respiratory protection until a licensed healthcare provider has determined that they are medically able to do so. Any employee refusing a medical evaluation for respirator use will not be allowed to work in any area requiring respirator use.

A licensed healthcare provider at a clinic selected by the University will provide the medical evaluation which includes:

- Performing initial and periodic medical evaluations and any necessary follow-up examinations of the respirator users to determine their ability to wear a respirator.
- Providing a written evaluation of the respirator user's ability to use a respirator to EHS.
- The medical evaluation will be conducted using the questionnaire provided in Appendix E to 1910.134 OSHA Respirator Medical Evaluation Questionnaire standard. The clinic where the medical evaluation is being performed will provide the questionnaire to the employee/student.
- Follow-up medical exams will be provided to respirator users as required, or as deemed necessary by the healthcare provider.
- All respirator users can discuss with the healthcare provider the results of their medical evaluation.
- The clinic may be provided with a copy of this program. The affected respirator user's profile contains the department name, job description, title, physical workload and any other protective equipment or clothing required to be worn by the employee.
- After the respirator user has received medical clearance and begins to wear the respirator, additional medical evaluations will be provided under the following circumstances:
 - Respirator user reports signs/symptoms related to the use of the respirator, such as shortness of breath, dizziness, chest pains, or wheezing.
 - The healthcare provider informs the Program Administrator, or their designee, that the respirator user needs to be reevaluated.
 - Information in this program, including observations made during fit testing or program evaluation, indicates a need for reevaluation.
 - A change occurs in the workplace that may result in an increased physiological burden on the respirator user.
 - All examinations and questionnaires remain confidential between the respirator user and healthcare provider. The clinic retains all respective medical records. NOTE: Students must do a PFT and have a medical examination. Students shall pay for these expenses. A physician's note is required for students.

Respirator Fit Testing

All respirator users that rely on a mask-to-face seal must be fit tested before initial use and annually thereafter. Fit testing is also required when a change in the facial structure of a wearer occurs or a different make/model of respirator is purchased.

Qualitative or quantitative fit tests are used to determine if the respirator mask provides an acceptable fit to the wearer. Qualitative fit test procedures rely on a subjective sensation (taste, irritation, smell) of the respirator wearer to a particular test agent while a quantitative fit test uses measuring instruments to measure face-seal leakage.

All fit testing is provided through EH&S. If a position is filled that requires the use of a respirator, please contact EH&S to set up the medical evaluation and fit test time at 909-469-8231 (ext.8231). A record of the fit test shall be retained by EH&S.

Fit testing of tight-fitting atmosphere-supplying respirators and tight-fitting powered air- purifying respirators (PAPR's) shall be accomplished by performing quantitative or qualitative fit testing in the negative pressure mode.

Loose fitting, hood-style PAPRs do not require fit testing.

Employees who have beards or other conditions that interfere with the face-to-face seal or valve function cannot wear tight-fitting respirator face pieces. Clean-shaven skin must be in contact with all respirator sealing surfaces. PPE or clothing that interferes with the face-to-face seal or valve is not allowed.

Corrective lenses with temple bars or straps that interfere with face-to-face sealing area cannot be used with any respirator. Please contact EH&S for further instruction.

Filtering Face Pieces, commonly called dust masks, which are required for the work activity and hazard present, are considered respirators and must be fit tested.

All N-95 filtering face-piece users must be qualitatively fit tested initially and yearly thereafter.

Training

Training is required for all respirator users prior to initial use, and annually thereafter, covering the following elements:

- Why the respirator is necessary and how improper fit, usage, or maintenance can compromise the protective effect of the respirator.
- The limitations and capabilities of the respirator.
- If applicable, wearers should know how to use the respirator effectively in emergency situations, including situations in which the respirator malfunctions.
- How to inspect, put on and remove, use, and check the seals of the respirator.
- What the procedures are for maintenance and storage of the respirator.
- How to recognize medical signs and symptoms that may limit or prevent the effective use of respirators.

Retraining may be required more than annually if workplace conditions change, new types of respirators are used, or if the EH&S Coordinator or supervisor determines there are inadequacies in the employee's knowledge or use.

EH&S is responsible for the training development, implementation and recordkeeping associated with the RPP.

Respirator Use

Respirator users should inspect, test, and conduct a negative/positive pressure seal check prior to each use. This ensures the respirator is adjusted properly and sealed against the face. The advantages are that this alone in the field and the check can be repeated any time the seal is in question. A negative pressure check is accomplished when the wearer closes off the respirator inlet and inhales. A vacuum and partial inward collapse of the mask should result. If a vacuum cannot

be maintained, readjust the facepiece and try again. A positive pressure check is accomplished when the wearer closes off the exhalation valve and breathes out gently. An outward expansion of the respirator should result. Air will escape through any gaps in the seal. If this should happen, readjust the facepiece and try again. For more information, please see 29 CFR 1910.134 Appendix-B.

Personnel required to wear a respirator shall only use respirator listed on their Fit Test Card including the type, manufacturer, model and size.

No modifications such as decorating, or painting can be made to any respirator.

Respirator users are not permitted to wear or use headphones, jewelry, or other articles that may interfere with the face-piece-to-face seal.

If the respirator user experiences physical symptoms such difficulty in breathing, dizziness, nausea etc., they shall immediately leave the potentially hazardous atmosphere and notify their supervisor.

Supervisors shall inform EH&S of any changes in materials, process or environmental conditions where respirators are required that could potentially increase either inhalation hazard or potential stress of respirator use.

Disposable respirators shall not be shared.

Disposable respirators shall not be used for more than one shift.

Entry into areas where the program administrator has identified as an IDLH atmospheres is not permitted for any WesternU personnel, including emergency response teams, unless written procedures, reviewed and approved by EH&S, have been developed and are in place (see Appendix B).

Respirator Maintenance and Care

Inspection and Maintenance

Supervisory personnel shall ensure respirators are used and worn correctly. If problems are observed corrective measures shall be taken immediately. If the respirator is not appropriate for the hazard, the wearer shall leave the area, cease work or take other action to eliminate further exposure.

Each person issued a respirator shall inspect the respirator prior to each use to ensure that it is in good condition. This inspection shall include a check of the tightness of the connections and the condition of the facepiece, headbands, valves, and cartridges. The mask itself shall be inspected for signs of deterioration.

Cleaning and Sanitizing

All tight-fitting respirators shall be cleaned and sanitized after each use by the respirator wearer. This shall be done in accordance with the manufacturer's recommendations.

Storage

When not in use, respirators shall be placed in individual sealable containers to protect them from contamination. Storage shall be in designated storage areas in such a manner that the respirator

will not be distorted or damaged. Storage areas to avoid include workbenches, toolboxes, or hanging from hooks out in the open workroom.

The employee's name will be on the respirator storage bag.

Identity of Filters, cartridges, and canisters

All filters, cartridges and canisters must be maintained as received by the manufacturers, distributors, or suppliers and labeled and color-coded with the NIOSH-approval label. The label cannot be removed and must remain legible. Defective filters, canisters and cartridges cannot be used and must be removed from service.

Cartridges Changeout

Cartridges should be dated when opened and replaced based on the manufacturer's recommendations, when an end of service life indicator is activated or chemical warning properties, such as smell or taste indicate breakthrough. If the manufacturer has made no recommendations, changeout should occur based on OSHA's methods of estimating service: Rule-of-thumb, mathematical models, or by experimental testing. In the absence of a specific change out schedule, cartridges will be disposed of after 8-hours of use.

Defective Respirators

If any defects are noted, immediately contact EH&S for assistance. Respirators that are defective or have defective parts will be removed from service immediately, tagged as defective, and returned to the supplier or manufacturer for repair. Replacement respirators will be provided, identical to the unit that was defective.

Program Evaluation

The RPP Program Administrator or designee will evaluate this program annually or more often if necessary, to ensure it remains effective. The administrator will consult employees about proper respirator fit selection, use and maintenance and make periodic workplace observations to confirm that respirators are being used and maintained properly.

Comments related to this policy and program can be made by contacting EH&S at 909-469-8231 (ext. 8231) or via email at ehs@westernu.edu.

Definitions and Acronyms

Administrative Controls: Controls include limiting the length of time an employee is exposed to hazardous atmospheres.

Air-purifying respirator (APR): a respirator with an air-purifying filter, cartridge, or canister that removes specific air contaminants by passing ambient air through the air-purifying element.

Assigned protection factor (APF): the minimum anticipated protection provided by a properly functioning respirator or class of respirators to a given percentage of properly fitted and trained users. The APF for a respirator is assigned by NOISH and with the MUC helps to determine the appropriate respirator.

Atmosphere-supplying respirator: a respirator that supplies the respirator user with breathing air from a source independent of the ambient atmosphere and includes supplied-air respirators (SARs) and self-contained breathing apparatus (SCBA) units.

Canister or cartridge: a container with a filter, sorbent, or catalyst, or combination of these items, which removes specific contaminants from the air passed through the container.

Demand respirator: an atmosphere-supplying respirator that admits breathing air to the facepiece only when a negative pressure is created inside the facepiece by inhalation.

EHS: WesternU EHS Program who is designated as the Respiratory Protection Program Administrator.

Emergency situation: any occurrence such as, but not limited to, equipment failure, rupture of containers, or failure of control equipment that may or does result in an uncontrolled significant release of an airborne contaminant.

Employee exposure: exposure to a concentration of an airborne contaminant that would occur if the employee were not using respiratory protection.

Engineering Controls: Controls may include working in fume hoods, enclosures, or modify work processes/equipment to decrease the exposure of hazardous atmospheres.

End-of-service-life indicator (ESLI): a system that warns the respirator user of the approach of the end of adequate respiratory protection, for example, that the sorbent is approaching saturation or is no longer effective.

Escape-only respirator: a respirator intended to be used only for emergency exit.

Filter or air purifying element: a component used in respirators to remove solid or liquid aerosols from the inspired air.

Filtering facepiece (dust mask): a negative pressure particulate respirator with a filter as an integral part of the facepiece or with the entire facepiece composed of the filtering medium.

Fit factor: a quantitative estimate of the fit of a particular respirator to a specific individual, and typically estimates the ratio of the concentration of a substance in ambient air to its concentration inside the respirator when worn.

Fit test: the use of a protocol to qualitatively or quantitatively evaluate the fit of a respirator on an individual. (See also Qualitative fit test QLFT and Quantitative fit test QNFT.)

Helmet: a rigid respiratory inlet covering that also provides head protection against impact and penetration.

High efficiency particulate air (HEPA) filter: a filter that is at least 99.97% efficient in removing monodisperse particles of 0.3 micrometers in diameter. The equivalent NIOSH 42 CFR 84 particulate filters are the N100, R100, and P100 filters.

Hood means a respiratory inlet covering that completely covers the head and neck and may also cover portions of the shoulders and torso.

Immediately dangerous to life or health (IDLH): an atmosphere that poses an immediate threat to life, would cause irreversible adverse health effects, or would impair an individual's ability to escape from a dangerous atmosphere.

Loose-fitting facepiece: a respiratory inlet covering that is designed to form a partial seal with the face.

Maximum use concentration (MUC): the maximum atmospheric concentration of a hazardous substance from which an employee can be expected to be protected when wearing a respirator and is determined by the assigned protection factor of the respirator or class of respirators and the exposure limit of the hazardous substance. The MUC usually can be determined mathematically by multiplying the assigned protection factor specified for a respirator by the NIOSH recommended exposure limit (REL), permissible exposure limit, short term exposure limit, ceiling limit, peak limit, or any other exposure limit used for the hazardous substance.

Negative pressure respirator (tight fitting): a respirator in which the air pressure inside the facepiece is negative during inhalation with respect to the ambient air pressure outside the respirator.

National Institute of Occupational Safety and Health (NIOSH): the agency which tests and certifies respirators.

Oxygen deficient atmosphere: an atmosphere with an oxygen content below 19.5% by volume.

Program Administrator: the WesternU Environmental Safety and Health –Occupational Health and Safety Program

Physician or other licensed health care professional (PLHCP): an individual whose legally permitted scope or 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 Sections 2.4 and 10.

Positive pressure respirator: a respirator in which the pressure inside the respiratory inlet covering exceeds the ambient air pressure outside the respirator.

Powered air-purifying respirator (PAPR): an air-purifying respirator that uses a blower to force the ambient air through air-purifying elements to the inlet covering.

Pressure demand respirator means a positive pressure atmosphere-supplying respirator that admits breathing air to the facepiece when the positive pressure is reduced inside the facepiece by inhalation.

Qualitative fit test (QLFT): a pass/fail fit test to assess the adequacy of respirator fit that relies on the individual's response to the test agent.

Quantitative fit test (QNFT): an assessment of the adequacy of respirator fit by numerically measuring the amount of leakage into the respirator.

Respiratory inlet covering: that portion of a respirator that forms the protective barrier between the user's respiratory tract and an air-purifying device or breathing air source, or both. It may be a facepiece, helmet, hood, suit, or a mouthpiece respirator with nose clamp.

Self-contained breathing apparatus (SCBA): an atmosphere-supplying respirator for which the breathing air source is designed to be carried by the user.

Service life: the period of time that a respirator, filter or sorbent, or other respiratory equipment provides adequate protection to the wearer.

Supplied-air respirator (SAR) or airline respirator: an atmosphere-supplying respirator for which the source of breathing air is not designed to be carried by the user.

Tight-fitting facepiece: a respiratory inlet covering that forms a complete seal with the face.

User seal check: an action conducted by the respirator user to determine if the respirator is properly seated to the face.