Respiratory Protection Program

Revised:
March 5, 2015

© 2005 - 2015. University of New Hampshire– Office of Environmental Health and Safety. All rights reserved.

The most current version of this document can be found at:
http://www.unh.edu/research/environmental-health-and-safety
UNH Respiratory Protection Program

Table of Contents

I. POLICY ........................................................................................................................................... 3
II. SCOPE AND APPLICATION ........................................................................................................... 3
III. ACRONYMS AND DEFINITIONS .................................................................................................... 4
IV. RESPONSIBILITIES ........................................................................................................................ 5
    A. Office of Environmental Health and Safety .............................................................................. 5
    B. Departments .............................................................................................................................. 5
    C. Employees ................................................................................................................................. 6
V. PROCEDURES .................................................................................................................................. 7
    A. Hazard Assessment & Respirator Determination ...................................................................... 7
    B. Medical Evaluation ................................................................................................................... 9
    C. Respiratory Protection Training ................................................................................................. 10
    D. Fit Testing Procedures ............................................................................................................... 11
    E. Cleaning, Maintenance, and Storage .......................................................................................... 16
    F. Recordkeeping Requirements .................................................................................................... 17

Appendices

Appendix A: Respiratory Protection Program Medical Evaluation Questionnaire
Appendix B: Respiratory Protection Program Record of Fit Test Form
Appendix C: Voluntary Respirator Use Form
I. POLICY

Individuals at the University of New Hampshire (UNH) are entitled to a working and learning environment free of unsafe and unhealthy conditions. This goal, as it pertains to respiratory health, is best attained through engineering controls - modifying the source in order to reduce the amount of contaminants to which an individual is exposed. Often these types of controls are either insufficient or not feasible. It is in these situations, in accordance with the Federal and State of New Hampshire Occupational Safety & Health Standards, that respirators are required.

Respirators act as a barrier, preventing contaminant dusts, fumes, mists, smokes, gases, and vapors from entering the body via the respiratory system. A respirator will only be effective, however, if used with a comprehensive respiratory protection program that includes guidance on proper selection, use, and maintenance. The purpose of the UNH Respiratory Protection Program is to provide this guidance and define responsibilities for the timely issue, testing, maintenance, and administration of respirators.

The selection, use, and maintenance of respirators in the United States are presently regulated by several Federal agencies. The acts which authorize their activities, agencies, and current regulations relating to selection, use, and maintenance of respirators, are as follows:

<table>
<thead>
<tr>
<th>Legislation</th>
<th>Agency</th>
<th>Regulations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occupational Safety and Health Act of 1970</td>
<td>National Institute for Occupational Safety and Health, Centers for Disease Control, Department of Health and Human Services</td>
<td>Title 42 CFR Part 84</td>
</tr>
<tr>
<td>Occupational Safety and Health Act of 1970</td>
<td>Occupational Safety and Health Administration, Department of Labor</td>
<td>Title 29 CFR Part 1910</td>
</tr>
<tr>
<td>Toxic Substances Control Act of 1970</td>
<td>Environmental Protection Agency</td>
<td>Title 40 CFR Part 763</td>
</tr>
<tr>
<td>Title II of the Energy Reorganization Act of 1974</td>
<td>Nuclear Regulatory Commission</td>
<td>Title 10 CFR Part 20</td>
</tr>
</tbody>
</table>

II. SCOPE AND APPLICATION

The UNH Respiratory Protection Program outlines the requirements for those employees where
inhalation hazards are present that cannot be adequately controlled through engineering controls.

Two types of hazards may necessitate respiratory protection - oxygen deficiency and contaminated atmospheres. Oxygen deficient atmospheres have an oxygen concentration that is less than 19.5%. Contaminated atmospheres contain toxic gases, vapors, or particles at harmful levels.

Oxygen deficient atmospheres require the use of an atmosphere-supplying. Work in oxygen deficient environments is not performed by UNH employees.

In general, environments with hazardous air contaminants may warrant the use of either an air-purifying respirator (APR) or an atmosphere-supplying respirator. The type of respirator required for a contaminated atmosphere is determined in large part by the level of air contamination. Air contaminants in excess of fifty (50) times above the occupational exposure limit (OEL), in excess of the limit immediately dangerous to life and health (IDLH), environments with unknown air contamination, or emergency response situations require the use of atmosphere-supplying respirators. UNH does not perform work that requires the use of an atmosphere-supplying respirator.

UNH employees may be required to work in environments with air contaminants up to fifty (50) times above the OEL. One of several types of APRs may be issued to UNH employees for such work. APRs rely on cartridges or canisters containing filtering and/or absorbent materials to remove contaminants from the air.

III. ACRONYMS AND DEFINITIONS

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>APR</td>
<td>Air Purifying Respirator</td>
</tr>
<tr>
<td>ESLI</td>
<td>End of Service Life Indicator</td>
</tr>
<tr>
<td>NIOSH</td>
<td>National Institute for Occupational Safety and Health. A division of the Centers for Disease Control and Prevention (CDC)</td>
</tr>
<tr>
<td>OEL</td>
<td>Occupational Exposure Limit. May refer to the Permissible Exposure Limit established by OSHA, or the Threshold Limit Value established by the American Conference of Governmental Industrial Hygienists (whichever is more protective).</td>
</tr>
<tr>
<td>OEHS</td>
<td>The UNH Office of Environmental Health and Safety</td>
</tr>
<tr>
<td>OHSC</td>
<td>The Occupational Health and Safety Coordinator at the UNH Office of Environmental Health and Safety</td>
</tr>
<tr>
<td>OSHA</td>
<td>The U.S. Occupational Safety and Health Administration</td>
</tr>
<tr>
<td>PAPR</td>
<td>Powered Air Purifying Respirator. At UNH the PAPR device is used in conjunction with a loose-fitting hood.</td>
</tr>
<tr>
<td>SAR</td>
<td>Supplied Air Respirator</td>
</tr>
<tr>
<td>SCBA</td>
<td>Self-Contained Breathing Apparatus</td>
</tr>
<tr>
<td>UNH</td>
<td>The University of New Hampshire</td>
</tr>
</tbody>
</table>

**Filtering Facepiece** - (sometimes referred to as a “dust mask”) is an air-purifying respirator with a filter as an integral part of the facepiece or with the entire facepiece composed of the filtering medium.
**Half-face APR** - an air purifying respirator with a facepiece that covers only the nose and mouth. This type of respirator can provide protection of up to ten (10) times the occupational exposure limit for the air contaminant when the respirator is equipped with the appropriate cartridge.

**Full-Face APR** - an air purifying respirator with a facepiece that covers the entire face. This type of respirator can provide protection of up to fifty (50) times the occupational exposure limit for the air contaminant if the respirator is equipped with the appropriate cartridge and the user receives a quantitative fit test (see Section V Part D of this program document).

**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. The inlet covering is typically located in the rear of a loose-fitting hood or a tight-fitting full face respirator. A hood respirator can provide protection of up to twenty-five (25) times the OEL for the air contaminant if the respirator is equipped with the appropriate cartridge while the tight fitting respirator can provide up to 50 times the OEL.

**IV: RESPONSIBILITIES**

**A. Office of Environmental Health and Safety**

1. Designates the Occupational Health and Safety Coordinator (OHSC) as the Program Administrator to oversee the campus Respiratory Protection Program.
2. Performs hazard assessments to determine where respirators are necessary, what type of respirator is appropriate for tasks/jobs, the correct cartridge or filter media for each task/job, and establishes a cartridge/media change-out schedule.
3. Evaluates and ensures adequacy of respiratory protection equipment before the purchase and issuance to individuals.
4. Oversees issue of respiratory protective equipment.
5. Provides and/or coordinates initial and refresher training and fit testing. Training classes and fit tests are scheduled on an as-needed basis as requested by the affected Departments.
6. Assists Departments with respiratory protection issues upon request.
7. Conducts inspections of respirator use, maintenance, and storage.
8. Provides the Respirator Medical Evaluation Questionnaire to individuals needing a respirator prior to issue.
9. Maintains records of compliance with this program in accordance with Section V Part F of the UNH Respiratory Protection Program.
10. Periodically evaluates and updates this program document as needed.

**B. Departments**

1. Ensures all affected Employees have proper protection before entering a hazardous environment.
2. Contacts the OHSC for a hazard assessment whenever new respiratory hazards are
introduced into the environment. This includes changes in methods, equipment, and/or products that may pose an inhalation hazard.

3. Coordinates routine maintenance of respirators. Ensures that affected Employees periodically clean respirators, replace deteriorated parts, change filters and cartridges, conduct proper user seal check before respirator use, and maintains an adequate supply of replacement parts. Provides adequate facilities for cleaning and storage of respirators.

4. Complies with the cartridge change-out schedule developed between the Department and the OHSC. Coordinates availability of necessary respirators and cartridges with the OHSC and Central Stores (if applicable).

5. Coordinates initial and annual refresher training for those employees that utilize respiratory protection.

6. Coordinates annual respirator fit testing for affected employees.

7. Coordinates initial and follow up medical evaluations in accordance with Section V Part B of this program.

C. Employees

1. Visually inspect their respirator before wearing. Request replacement parts or replacement respirator if damaged.

2. Perform proper negative and positive user seal checks prior to and during use.

3. Cleans respirator after each use.

4. Replaces cartridges according to the Department’s established respirator cartridge change-out schedule or when breathing becomes difficult due to an overloaded particulate filter.

5. Immediately exit work area and notify Supervisor and OHSC when contaminant is detected through the filter.

6. Employees who wear a tight fitting respirator (filtering facepiece, half-face APR or full-face APR): Ensures a tight seal on mask by maintaining a clean-shaven appearance any time that respirator is used.

7. Reports potentially hazardous environments to a Supervisor.

8. Reports episodes of dizziness, lightheadedness, or other health effects while wearing the respirator immediately to a Supervisor.

9. Participate in the medical surveillance component of the program.

10. Attends annual training and fit testing.
V: PROCEDURES

A. HAZARD ASSESSMENT & RESPIRATOR DETERMINATION

1. Hazard Assessment

The purpose of a hazard assessment is to determine whether respirators are necessary for a particular task or job, what type of respirator is required, what type of cartridge/filter media is necessary, and how often the cartridge/filter media must be changed. The OHSC will conduct hazard assessments where OEHS, a Department, or an Employee has determined that there is a potential for a hazardous atmosphere in the work environment. During the hazard assessment the OHSC will consider whether or not the hazard can be adequately controlled through source reduction, engineering controls, or changes in work practices. Respirators will only be used where the hazard assessment indicates that the contaminant cannot be effectively controlled through any other feasible means.

2. Respirator Selection

Respirators will be selected based on identified hazards, work environment, task(s) to be conducted, and filter limitations. Respirators selected will include any one, or combination of the following types;

- Filtering facepiece;
- Half or full face APR; and/or
- Powered Air Purifying Respirator.

All respirators selected for use at UNH will be NIOSH approved.

Respirators must be selected on the basis of the potential hazard to which the worker is exposed. The following factors will be considered in making this selection.

- The identity of the substance(s) and environment for which protection is needed;
- The physical state of the contaminant (dust, mist, vapor, etc., or a combination thereof);
- The permissible exposure limit or toxicity of the substance;
- Exposure assessments indicating the concentration likely to be encountered;
- The protection factor listed for the respirator type;
- The possibility of oxygen deficiency or other environments that are immediately dangerous to life or health (IDLH); and
- Any limitations or restrictions applicable to the types of respirators being considered which could make them unsafe in the environment involved.

---

1 This section is intended to be informational only. The OHSC is responsible for the ultimate determination of the most appropriate respirator type for each application. Departments and employees should not attempt to utilize the information in this section to make respirator selections without consulting the OHSC.
Air purifying respirators have limitations and are not effective in every working environment. Air purifying respirators will **not** be issued to UNH employees under the working conditions listed below.

- Emergency response;
- Unknown atmosphere or contaminant;
- Atmospheres which contain less than 19.5% oxygen;
- Atmospheres containing contaminant concentrations greater than 50 times the OEL;
- Atmospheres where the contaminant exceeds the level at which it is immediately dangerous to life or health (IDLH);
- Atmospheres containing highly toxic contaminants which have poor warning properties (no odor, etc.); or
- Fire fighting.

Under these circumstances UNH will either seek to control the contaminant through engineering controls or utilize specialty vendor services for the work activity.

Filtering facepiece respirators are designed only to eliminate particulate matter. These respirators do not provide any protection against hazardous gases or vapors. Filtering facepiece respirators may be selected where the contaminant is a particulate and is present at a level no greater than 10 times the OEL for the contaminant.

PAPRs, half-face APRs, and full-face APRs utilize interchangeable cartridges to protect the user against the hazardous atmosphere. A hooded PAPR is usually selected where the employee cannot obtain a fit with a tight-fitting respirator or where the employee has facial hair and will not be clean shaven during the work activity. Full-face APRs may be selected for work in environments with a contaminant concentration of 10 to 50 times above the OEL, where the employee cannot fit a half-face respirator, or where the contaminant is an eye irritant. Half-face tight-fitting APRs may be selected for work environments with a contaminant concentration of up to 10 times above the OEL and where the contaminant is not an eye irritant.

3. **Cartridge/Filter Media Selection**

Cartridges/filters for air purifying respirators, to include filtering facepiece respirators will be selected to match the respiratory hazards presented in the workplace. Filtering facepiece respirators are designed for protection against particulate matter and may be selected in one of several efficiency levels. Cartridges/filters can be selected to protect against particulate and/or gaseous contaminants. The OHSC will determine the appropriate filter/cartridges required.

---

2 This section is intended to be informational only. The OHSC is responsible for the ultimate determination of the most appropriate cartridge or filter type for each application. Departments and employees should not attempt to utilize information in this section to make cartridge/filter selections without consulting the OHSC.
4. **Cartridge/Filter Change-out Schedule**

Cartridges and filters have an expected service life and must be replaced. In some cases, the manufacturer may have an end of service life indicator (ESLI) on the cartridge which may be used by the respirator user to indicate when the cartridges need to be changed. Where ESLIs are not available, the OHSC shall determine a change-out schedule based on information gathered in the hazard assessment, and manufacturer’s data to ensure that cartridges are changed before breakthrough occurs.

5. **Voluntary Use of Respirators**

In the course of a hazard assessment the OHSC may determine that respiratory protection is not required to maintain employee safety for a particular task. As per the current OSHA Respiratory Protection Standard, voluntary use of respirators, when not required by UNH, must be controlled as strictly as possible. When used improperly, respirators may pose a greater hazard to the user than the work environment. To minimize the risk to employees and UNH, employees are **not** allowed voluntary use of respirators in non-hazardous atmospheres. Departments or Employees who are concerned about exposures to hazardous atmospheres should be directed to the OHSC for a hazard assessment and guidance.

*EXCEPTION: Employees may voluntarily use a filtering facepiece respirator (‘dust mask’). Employees using a filtering facepiece on a voluntary basis are not required to have a medical evaluation, annual respiratory protection training, or fit test. However, Affected Employees must sign the Voluntary Respirator Use Form prior to use (see Appendix C). The Voluntary Respirator Use Form shall be maintained on file with the employee’s department and a copy must be forwarded to the OHSC.*

**B. MEDICAL EVALUATION**

Respirators can impose physiological stresses including restriction of breathing. For this reason, a medical evaluation will determine whether a medical condition precludes an employee from the use of a respirator. All Employees required to wear respiratory protection must be medically cleared prior to receiving a fit test and being issued a respirator.

Before a respirator is issued, each individual must complete the Respiratory Protection Program Medical Evaluation Questionnaire (see Appendix A), which will be evaluated by a Physician or other Licensed Health Care Professional (PLHCP). Completed questionnaires will be forwarded to UNH Health Services as indicated on the form.

All questionnaires are processed in confidence with the PLHCP. Should follow up questions or medical examination be required, the employee will be notified by the PLHCP in confidence. Upon completion of the medical review process, the PLHCP will submit a Physician’s Written Opinion letter to the OHSC stating whether or not the individual is medically cleared to wear the respirator necessary for his/her job functions. The OHSC
shall maintain the Physician’s Written Opinion forms on file according to the recordkeeping requirements outlined in Section F of this program document.

A follow-up medical evaluation will be conducted on a regularly scheduled basis as outlined below.

<table>
<thead>
<tr>
<th>Employee Age</th>
<th>Re-Evaluation Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 40</td>
<td>Five years</td>
</tr>
<tr>
<td>40 and older</td>
<td>Three years</td>
</tr>
</tbody>
</table>

In addition to the frequency outlined above, follow-up medical evaluations will be required and scheduled by the affected Department under the following conditions:

- A change occurs in workplace conditions that may result in a substantial increase in the physiological burden placed on an individual;
- An Employee reports medical symptoms that are related to their ability to use a respirator;
- The PLHCP, Department, or Supervisor determines that an Employee needs to be re-evaluated; or
- Observations made during respirator fit testing or program evaluation indicate a need for the individual’s re-evaluation.

Individuals that experience claustrophobia or shortness of breath, or any other symptom potentially associated with respirator use must notify their supervisor. Any accidental exposure to a contaminant while wearing a respirator must be reported to the supervisor followed by prompt medical attention.

C. RESPIRATORY PROTECTION TRAINING

Respiratory Protection training will be coordinated and/or conducted by OEHS. Training for employees required to utilize respiratory protection will be conducted initially when the respirator is issued and annually thereafter. All training will be documented with records maintained by OEHS as specified in Section F of this program document.

Initial training will include the following:

- Reasons for respiratory protection including the nature of respiratory hazards and why engineering controls aren't used;
- Criteria used in hazard evaluation;
- Explanation of the respirator selection procedure;
- Hands-on demonstration of proper fitting, donning, user seal checks, wearing, removal, and inspection of respirator;
- Capabilities and limitations of respirators including effects of damage,
modifications, and facial hair;
• Proper cleaning, sanitation, maintenance and storage procedures;
• Explanation of Respiratory Protection Program Medical Evaluation Questionnaire to include conditions and signs/symptoms that could limit or prevent respirator use;
• Explanation, demonstration, and implementation of fit testing procedures for each individual to be issued a respirator; and
• Emergency procedures

Refresher training will be conducted on an annual basis. Refresher training will include a review of the following:

• Hazard assessment;
• Need for respirator;
• Basic respirator selection;
• Fit test procedures;
• Inspection procedures;
• Cleaning and sanitizing;
• Medical conditions;
• Supervisor responsibilities;
• Respirator safety; and
• Emergency procedures.

Refresher training will also be conducted whenever the workplace create conditions where previous training is determined to be obsolete, observations indicate employee’s knowledge or use of respiratory protection are inadequate, or any other condition arises where retraining is necessary to ensure the safe use of respiratory protection.

Employees will be required to bring their respirator to refresher training sessions.

D. FIT TESTING PROCEDURES

To ensure the proper fit of respiratory protection, each user will be provided with either a quantitative (QNFT) or qualitative (QLFT) fit test. Fit testing will be conducted prior to the initial use of a respirator and at a minimum annually thereafter. Fit testing will be conducted during initial and or refresher training, however should fit testing be necessary outside of scheduled training, each employee and/or Department will coordinate with OEHS.
*Employees requiring a fit test will not be provided one unless they have completed the medical surveillance questionnaire and received clearance for respirator use by the PLHCP.

Upon successful completion of the fit test, the OHSC will document the results on the UNH Respiratory Protection Program Record of Fit Test (see Appendix B). All completed Respiratory Protection Program Record of Fit Tests will be maintained on file with OEHS in accordance with Section F of this program document.

Respirator wearers may be offered a qualitative fit test, or a quantitative fit test. A qualitative fit test is performed using a challenge agent. The respirator wearer subjectively reports whether they can detect the challenge agent while wearing the respirator and performing a series of exercises. The OHSC performs qualitative fit tests where the user is wearing an air-purifying respirator and entering an environment with a contaminant concentration no greater than 10 times the OEL. The OHSC can perform qualitative fit testing at any time as needed.

A quantitative fit test utilizes a specialty instrument to simultaneously measure the concentration of airborne particles in the fit testing room and inside of the respirator mask. The OHSC performs quantitative fit testing for air purifying respirators that will be used in environments with a contaminant concentration greater than 10 times the OEL. Quantitative fit testing is uncommon at UNH. Due to the infrequent nature of quantitative fit testing, those employees needing a quantitative fit test will coordinate with OEHS to obtain the fit test from a third party vendor. In these cases each Department will be responsible for any charge and for providing a copy of the fit test record to the OHSC immediately upon receipt.

*Employees who will wear a PAPR with a loose fitting hood and enter environments with contaminant concentrations no greater than 10 times the OEL do not need to have a fit test.

1. **Initial Respirator Fit Testing**

Employees who are new to the UNH Respiratory Protection Program will select a respirator from the inventory available from the OHSC. Selection is limited to the type of respirator selected during the hazard assessment (e.g., half-face APR, full-face APR, etc.)

For the purposes of fit testing the OHSC maintains a supply of air purifying respirators and accessories of various makes, models, and sizes so that each user can select a respirator that is acceptable and fits correctly. Once the user selects a respirator and passes a fit test, the OHSC will communicate the respirator make, model, and size to Purchasing. Upon receipt at UNH, the OHSC will pick up and provide the new respirator to the user.

Each department will be responsible for the purchase of respirators, filter cartridges, and/or any other accessories as required for use.
The initial respirator fitting, regardless of whether it is a qualitative or quantitative fit test, shall follow the same basic procedure. The Employee will be guided through the following processes:

- Try on various respirators until the user finds one that is acceptable and fits correctly;
- Inspect the selected respirator;
- Don the respirator and wear for several minutes to become accustomed to the feel of the device;
- Perform a negative user seal check;
- Perform a positive user seal check; and
- Undergo the fit test procedure.

2. Annual Respirator Fit Tests

Employees who are participating in the UNH Respiratory Protection Program are required to have, at a minimum, a fit test on an annually basis. An additional fit test is also necessary if employees exhibit any of conditions listed below.

- A participating employee has significant dental surgery that alters the shape of his/her face;
- A participating employee sustains injury, exhibits new facial scarring, or has undergone any other medical procedure that alters the shape of his/her face;
- A participating employee has a weight change of greater than 15 pounds; or
- A participating employee experiences any other change that could impact the fit of the respirator.

Every attempt will be made to coordinate annual fit testing with annual refresher training. Employees are responsible for bringing their issued respirator(s) to the fit test. If employees are using respirators other than those typically stocked by the OHSC, the employee’s Department is responsible for providing the OHSC with the correct respirator cartridges for fit testing. The correct respirator cartridges for fit testing are determined according to the respirator in use and the fit test performed; the cartridge needed for fit testing may differ from the cartridge(s) normally used by the employee.

Should the employee require a new respirator following a change that affects their fit, they will be provided a new respirator based on the results of the fit test. Departments are responsible for coordinating fit tests annually or more frequently as needed.

The annual respirator fit testing, regardless of whether it is a qualitative or quantitative fit test, shall follow the same basic procedure. The employee will be guided through the following processes:
• Inspect the selected respirator;
• Don the respirator;
• Perform a negative fit check;
• Perform a positive fit check; and
• Undergo the fit test procedure.

3. **Fit Test Procedures**

   a. **Respirator Inspection**

   Before donning all respirators must be inspected for the following:

   • General construction of respirator (not dented, cracked);
   • A check of elastomeric parts for pliability and signs of deterioration; and
   • Cleanliness of respirator.

   In addition, half-face and full-face APRs will be inspected for the following:

   • Condition of valves;
   • Filter and cartridge condition (intact, unbroken);
   • Flexibility of valve disk (not brittle); and
   • Tightness of connections.

   b. **Negative Pressure User Seal Check**

   The negative pressure user seal check is performed by users wearing a tight-fitting respirator (e.g., filtering facepiece, half-face APR, or full-face APR). The user must perform this test each time s/he dons the respirator. The user will be required to demonstrate this fit check during respirator fit testing. The fit is considered satisfactory if the face piece remains slightly collapsed and no inward leakage is detected.

   Full-face and half-face APRs:

   Cover the cartridge air inlets with the palms of the hands and inhale for 5-10 seconds. The face piece should collapse slightly and remain collapsed.

   Filtering facepiece respirators:

   Don the respirator and inhale for 5-10 seconds. No leaks should be detected around the seal.
If no air leakage between face and face piece has been detected, a proper fit has been obtained. If leakage has been detected, the individual should do any or all of the following:

- Adjust tension on straps.
- Adjust nosepiece (filtering facepiece respirator).
- Refit respirator.
- Try different size respirator.

This test should be repeated until a satisfactory seal has been achieved. If leakage persists, notify the OHSC.

c. Positive Pressure User Seal Check

The positive pressure user seal check is performed by users wearing a tight-fitting respirator (e.g., filtering facepiece, half-face APR, or full-face APR). The user must perform this test each time s/he dons the respirator. The user will be required to demonstrate this fit check during initial and annual respirator fit testing. The fit is considered satisfactory if a slight positive pressure can be maintained inside the face piece without any evidence of outward leakage. The user should perform this test just before entering any hazardous atmosphere.

Full-face and half-face APRs:

Cover the exhalation valve and exhale gently into the face piece. Hold the positive pressure for 10 seconds.

Filtering facepiece respirators:

Cover the entire surface of the respirator and exhale gently into the mask. Hold the positive pressure for 10 seconds.

Care must be taken so that the individual does not exhale so strongly as to force the respirator away from their face. Pushing hard on the exhalation valve of half-mask respirators will also force the respirator away from the face. No air should pass out of the respirator during the test.

If leakage is detected, the individual should try any or all of the following:

- Adjust tension on temple straps.
- Adjust nosepiece (filtering facepiece respirator).
- Refit respirator.
- Try different size respirator.
This test should be repeated until a satisfactory seal has been achieved. If leakage persists, notify the OHSC.

E. CLEANING, MAINTENANCE, AND STORAGE

Routine cleaning and maintenance is an essential component of any Respiratory Protection Program. By properly cleaning, maintaining, and storing a respirator, its effectiveness is assured and its service life increased. These procedures apply to non-disposable air-purifying respirators.

1. Cleaning Procedures

All respirators will be cleaned after each use to prevent possible infection or contamination. If the respirator has not been used, it should be cleaned monthly. Each manufacturer provides instructions for cleaning the respirator. Always follow the manufacturer’s recommendations for cleaning solutions. Never use solutions that contain ammonium chloride as this can accelerate the deterioration of rubber parts. Never use paper towels to clean the lenses of full faceplates as this can abrade the surface.

Cleaning procedures are as follows:

- Remove filters, cartridges, valve covers, valve flaps, and head harness if applicable;
- Immerse disassembled respirator in warm water and soap/disinfectants (refer to manufacturer’s instructions for appropriate cleaning solution);
- Use a soft brush or cloth to remove dust, grease, paint, or other contaminants from facepiece;
- Gently wash valve flaps and other components;
- Rinse off cleaning solution with clean water;
- Towel or air dry (do not dry by using compressed air, heat, or sunlight);
- Inspect clean and dried facepiece and components, replace damaged components if needed;
- Reassemble; and
- Place respirator in clean re-sealable bag and store in an appropriate location.

2. Inspection Procedures

Respirators must be inspected before and after each use and during each cleaning. Respirators displaying any of the following characteristics shall be removed from service:

All respirators:

- Brittle or frayed temple straps and elastic head band (head straps).
• Excessive fraying or stretching around respirator edges.
• Any other items per manufacturer’s recommendations.

Air-purifying respirators:

• Cracked or damaged cartridges or filters.
• Cracked or foggy face shield (full face APR).
• Disfigured or damaged facepiece.
• Warped or torn exhaust or intake valves;
• Stripped cartridge/filter threads;

Any respirator failing inspection will be removed from service until that time it is properly repaired or replaced.

3. **Storage Procedures**

Respirators must be properly stored to protect them from conditions that may negatively affect their protection capabilities.

Dust, sunlight, extreme temperatures, moisture, chemicals, and physical damage can all contribute to the deterioration of the respirator. Respirators should be stored in individual re-sealable plastic bags in their natural positions, protected from contamination, distortion, and damage.

**F. RECORDKEEPING REQUIREMENTS**

UNH is responsible for maintaining records of specific activities performed under the Respiratory Protection Program.

1. **Medical Evaluations**

Record retention requirements for medical documents related to the Respiratory Protection Program are specified by OSHA (29 CFR 1910.1020). The Respiratory Protection Program Medical Evaluation Questionnaire and all records of follow up evaluations by the PLHCP shall be preserved and maintained by the medical provider’s organization (Health Services or a third party occupational health vendor) for the duration of the employee’s employment with UNH plus thirty (30) years.

Copies of the Physician’s Written Opinion form shall be preserved and maintained in the OEHS for the duration of the employee’s employment with UNH plus thirty (30) years.
2. **Fit Tests**

Copies of the Respiratory Fit Test Records shall be preserved and maintained in the OEHS for a minimum of one (1) year. The records shall include the name or identification of the employee tested; the type of fit test performed; the specific make, model, style, and size of the respirator tested; the date of the test; and the pass or fail results for QLFT or fit factor for QNFT.

3. **Training**

Attendance records for Employee initial and refresher training shall be preserved and maintained in the OEHS for a minimum of the duration of the employee’s employment with UNH.

4. **Voluntary Respirator Use Forms**

Copies of the Voluntary Respirator Use Forms for employees voluntarily using filtering facepiece respirators shall be preserved and maintained in the OEHS for the duration of the employee’s employment with UNH.
Appendix A
Respiratory Protection Program
Medical Evaluation Questionnaire
Appendix B
Respiratory Protection Program
Record of Fit Test Form
Appendix C
Voluntary Respirator Use Form