

**UNIVERSITY OF ROCHESTER  
ENVIRONMENTAL HEALTH & SAFETY**

<b>Policy No.: OS005</b>	<b>Approved by: Mike Liberty</b>
<b>Title: Respiratory Protection Program</b>	<b>Date: 2/3/2022</b>
<b>Revision No.: 14</b>	<b>Page 1 of 32</b>
<b>Prepared by: Yohana Rivero</b>	

**I. PURPOSE**

This policy covers any University employee who, in the course of their duties, may perform work in areas where recognized or anticipated respiratory hazards are present and respiratory protection is needed.

Examples of recognized hazards include, but are not limited to chemical exposures, biological exposures, and airborne debris that could be inhaled. Personal protective equipment shall not be relied upon when there are feasible engineering and/or administrative controls available that can provide protection equal to or greater than that offered by personal protective equipment.

**II. PERSONNEL AFFECTED**

Many substances may be harmful if inhaled. Examples include some wood dusts, chemical powders, particulates, mists from water-based chemical sprays, gaseous chemicals, fumes from welding galvanized steel, vapors, or aerosolized microorganisms such as Mycobacterium tuberculosis (TB). When it is not possible to remove these hazards with engineering controls (for example, substituting non-harmful products or installing exhaust ventilation), or to reduce exposure to safe levels by means of administrative controls, it may be necessary to use respiratory protection.

It is the intent of this program that the University of Rochester shall:

- Evaluate tasks and workplaces to determine if respiratory protection is needed;
- Evaluate employees' medical status before issuing respirators (and when necessary, to accommodate those employees who cannot wear respiratory protection for medical reasons);
- Provide training on the proper selection, use, care, and limitations of respirators;
- Provide properly fitted respirators to any employees who may need them; and,
- Perform any other tasks necessary to comply with OSHA's 29 CFR 1910.134, Respiratory Protection Standard <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.134>

No employee may be fitted for, issued, required to use, or use a respirator of any sort without complying fully with this document.

Any employee wishing to use a respirator voluntarily, for comfort purposes, must do so in compliance with the voluntary use provisions of this document in **Appendix A**.

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**III. DEFINITIONS**

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

***Assigned protection factor (APF)*** means the workplace level of respiratory protection that a respirator or class of respirators is expected to provide to employees when the employer implements a continuing, effective respiratory protection program as specified by this section.

***Atmosphere-supplying respirator*** means 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.

***Cartridge*** means a container with a filter, sorbent, or catalyst, or combination of these items, which removes specific contaminants from the air passed through the container.

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

***End-of-service-life indicator (ESLI)*** means 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.

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

***Dust mask*** means 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*** means 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*** means the use of a protocol to qualitatively or quantitatively evaluate the fit of a respirator on an individual

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

**High efficiency particulate air (HEPA) filter** means 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)** means 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.

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

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

**Physician or other licensed health care professional (PLHCP)** means an individual whose legally permitted scope of practice (i.e., license, registration, or certification) allows him or her to independently provide, or be delegated the responsibility to provide, some or all of the health care services required by 1910.134.

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

**Powered air-purifying respirator (PAPR)** means an air-purifying respirator that uses a blower to force the ambient air through air-purifying elements to the inlet covering (i.e. MaxAir CAPR).

**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)** means a pass/fail fit test to assess the adequacy of respirator fit that relies on the individual's response to the test agent.

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

**Respiratory inlet covering** means 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, and suit.

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

**Service life** means 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** means an atmosphere-supplying respirator for which the source of breathing air is not designed to be carried by the user (i.e. air compressor).

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

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

#### **IV. RESPONSIBILITIES**

##### ***The Environmental Health and Safety Department***

It is the responsibility of the Occupational Safety and Laboratory Safety Units to:

- Maintain the University of Rochester's written Respiratory Protection Program;
- Provide assistance in evaluating tasks and workplaces where respiratory protection is or may be required. The evaluations are documented in the Certificate of Hazard Assessments (CHA).
- Provide on-line training in cooperation with the SMH Employee Health Program and University Health Service's Occupational Health Unit;
- Periodically review and update the written respiratory protection program and procedures;
- Provide assistance in the selection of respiratory protection equipment;
- Provide assistance in the determination of cartridge change-out schedules;
- Review plans for any new respiratory protection applications to ensure appropriate protection is provided and regulatory compliance is maintained; and,
- Periodically evaluate departments' compliance with this document.

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- Provide training for new Respiratory Program Coordinators (RPC)

***Strong Memorial Hospital Employee Health Program and University Health Service (UHS)***

It is the responsibility of the SMH Employee Health Program and University Health Service to:

- Medically evaluate and provide documentation of medical clearances to University employees required to use respiratory protection;
- Provide employees and supervisors with written results of the medical clearance;
- Recommend ways for the University to accommodate employees who are not medically capable of wearing respiratory protective equipment;
- Provide initial and annual fit testing and training in cooperation with EH&S Occupational Safety;
- Ensure employees have been medically cleared and trained prior to being fit tested;
- Validate training effectiveness by means of written quizzes, tests, or examinations; and,
- Maintain records of employee medical clearance, fit testing and training.

***University Administration, Directors, Managers, Principal Investigators, Patient Care Providers, Nurse Managers/Leaders, and Supervisors***

It is the responsibility of University Administration, Directors, Managers, Principal Investigators, Patient Care Providers, Nurse Managers/Leaders, and Supervisors to:

- Ensure that respiratory hazards are mitigated using the hierarchy of controls (first eliminating hazards by means of engineering controls, then limiting exposure through administrative means, and finally protecting against hazards through the use of PPE when engineering or administrative controls cannot be used.
- Ensure that the employees who report to them are meeting all the requirements of this written program.
- As determined through Certificate of Hazard Assessments, ensure that employees are supplied with appropriate respiratory protection equipment.
- Establish record keeping guidelines for records related to this program (i.e., training records, medical clearance memos, and site-specific procedures)
- Designate a Respiratory Protection Coordinator who is charged with managing their department's compliance with the Respiratory Protection program, notify EHS of the designee's identity, and provide EHS with updated information whenever there is a change of the designee;
- Provide their employees with training for task- and/or site/area-specific

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- hazards, policies, and precautions
- Ensure that outdated, damaged, deficient, or otherwise unsafe equipment is immediately removed from service and repaired or properly discarded and replaced.
- Determine training needs for each employee/group of employees that use, or will use, respirators in the workplace; and,
- Arrange for and ensure that required training is delivered to employees who use, or will use, respirators in the workplace.
- Ensure that the hazards are assessed before voluntary use is permitted.

***University Respiratory Protection Program Coordinators (RPCs)***

It is the responsibility of the Respiratory Protection Program Coordinators to:

- Maintain a list of respirator users in their area(s);
- Ensure that new employees/users in their areas are medically cleared, trained (both general and area-specific), and fit tested as required prior to using respirators;
- Ensure that respirator users in their areas receive annual medical clearance, training and fit testing as required;
- Facilitate completion of hazard assessment with EH&S and verify that respirator(s) used are appropriate to address the hazard condition(s) present.
- Maintain required documentation for:
  - Local procedures and SOPs (Standard Operating Procedures)
  - Respirator selection documentation
  - Voluntary use documentation (**Appendix A**)
  - Cartridge change-out schedules
- Note: University Human Resources identifies all staff with job responsibilities that may involve patient contact as participants in the Respiratory Protection Program. In patient care areas, respiratory protection is utilized when “airborne precautions” are put in place. The local department does not maintain specific SOPs, but follows hospital policies for infection prevention. Records related to medical clearance and fit-testing for medical staff are maintained by UHS and SMH Employee Health Program
- Establish site/area-specific procedures for the use, care, inventory, and proper storage of respirators including periodic check of expiration dates on equipment.
- Verify all respirators in your department are NIOSH approved.
- Act as a resource to answer questions for the respirator users in their area(s);
- Act as the communications contact between area respirator users and EH&S Respiratory Protection Program Management;
- Work with EH&S to ensure proper cartridge change-out schedules are developed and followed;
- Work with EH&S on Respiratory Protection Program audits and evaluations.

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- Complete annual refresher on-line training for Respiratory Protection Program Coordinators (RPC).
- Attend RPC meetings as required by EH&S.

***Respiratory Protection Users***

It is the responsibility of respiratory protection users to:

- Correctly wear proper respiratory protection for tasks, conditions, or areas that require it.
- Follow site-specific procedures established by their departments;
- Attend training classes and/or complete any required training programs;
- Keep medical clearance appointments;
- Inspect respiratory protective equipment prior to each use;
- Store respirators in a safe, clean and sanitary manner, away from potential sources of contamination and in a way that will prevent damage;
- Clean and disinfect re-usable respirators regularly;
- Perform negative and positive pressure fit checks each time they don a respirator;
- Report damaged or malfunctioning equipment immediately to Supervisors/Principal Investigators or RPC.
- Notify their Supervisor/Principal Investigator of any conditions potentially requiring respiratory protection and/or other PPE; and,
- Be in full compliance with **Appendix A** of this document if using a respirator on a voluntary basis.
- Not wear respiratory protective equipment if he or she has any condition (i.e., facial hair, clothing, or hairstyle, etc.), which may interfere with the proper fit and operation of the respirator. If an employee requires corrective lenses, these lenses must be worn during operations involving respiratory protective equipment, and must be worn in such a way as to not interfere with the respirator's seal or operation.
- Don respiratory protection equipment in an area free of contamination and must be worn at all times while in the contaminated area. Any adjustments to the equipment that might compromise the seal of tight-fitting face pieces or the air flow of PAPRs, and airline respirators, must not be performed while the user is in the contaminated area.

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**V. PROCEDURES**

**Respirator Selection**

Proper respiratory protection selection is made based on a hazard assessment of potential exposure of employees to harmful concentrations of air-borne contaminants in the workplace. This evaluation will be performed prior to the start of any routine or non-routine tasks requiring respirators. It is the responsibility of Occupational Safety and Laboratory Safety units to ensure the hazards are assessed, once contacted by management or an RPC. The following shall be considered in the selection of respirators:

- Feasibility of engineering or administrative controls in lieu of PPE;
- Estimated maximum concentration of the substance in the work area
- General environment and ventilation (open shop or confined space, etc.);
- Known limitations of the respiratory protective device;
- Comfort, fit, and worker acceptance;
- The task to be performed, including the anticipated workload;
- Other contaminants in the environment;
- Potential for oxygen deficiency;
- Other PPE that may be required; and,
- Verification of the respirator's NIOSH certification for its intended use.
- Effectiveness of the device against the substance of concern

***Assigned Protection Factors (APFs) for Respirators***

APFs is the level of protection a respirator can be expected to provide if it is functioning properly and the user is wearing it correctly. The APF is the ratio of the contaminant concentration outside the respirator to the contaminant concentration inside the respirator. The APF table (below) is provided as a guide in the selection of air purifying, powered air-purifying, supplied air (or airline respirator), and self-contained breathing apparatus (SCBA) respirators.

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**Assigned Protection Factors**

Type of Respirator	Quarter Mask	Half Mask	Full Face piece	Helmet/Hood	Loose-Fitting Facepiece (i.e. Face cuff MaxAir CAPR)
Air-purifying respirator	5	10	50	----	----
Powered Air-Purifying Respirator (PAPR)	----	50	1,000	25/1,000	25
Supplied-Air Respirator (SAR) or Airline Respirator					
<input type="checkbox"/> Demand Mode	----	10	50	----	----
<input type="checkbox"/> Continuous flow mode	----	50	1,000	25/1,000	25
<input type="checkbox"/> Pressure-demand or other positive pressure mode	----	50	1,000	----	----
Self-Contained Breathing Apparatus (SCBA) <sup>1</sup>					
<input type="checkbox"/> Demand Mode	----	10	50	50	----
<input type="checkbox"/> Pressure-demand or other positive-pressure mode (e.g., open/closed circuit)	----	----	10,000	10,000	----

**Notes:**

<sup>1</sup> UR does not use any SCBAs.

***Conditions that are Immediately Dangerous to Life and Health***

Some circumstances may arise where it is not possible to accurately identify or estimate potential chemical exposures. If this should occur, the task or area shall be considered Immediately Dangerous to Life and Health (IDLH). Oxygen deficient atmospheres shall also be considered IDLH. Because auxiliary self-contained air supplies are not provided, the University's airline respirators must not be used in IDLH conditions.

**UNIVERSITY EMPLOYEES ARE NOT PERMITTED TO ENTER IDLH ATMOSPHERES.**

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## **Types of Respirators**

### ***Supplied-Air Respirators***

These respirators provide breathing air independent of the environment. Such respirators are to be used when the contaminant has poor warning properties (insufficient odor, taste or irritating warning properties), or when the contaminant is of such high concentration or toxicity that an air purifying respirator is inadequate. Supplied-air respirators are classified as follows:

- Demand respirators, which supply air to the user on demand (inhalation), which creates a negative pressure within the facepiece. Leakage into the facepiece may occur if there is a poor seal between the respirator and the user's face;
- Pressure-Demand respirators maintain a continuous positive pressure within the facepiece, thus minimizing leakage into the facepiece;
- Continuous Flow respirators maintain a constant flow of air through the facepiece which minimizes leakage into the facepiece;
- Airline respirators, which provide the user with clean air by means of a hose fed by a compressor located outside of the contaminated area. Airline respirators may be equipped with tight fitting face pieces or with loose fitting headpieces or hoods.

### ***Air-Purifying Respirator (APR)***

These respirators remove air contaminants by filtering, absorbing, adsorbing, or chemically reacting with the contaminants as they pass through the respirator filter cartridge. This type of respirator is to be used only where adequate oxygen is available and the atmosphere is not oxygen enriched (within the range of 19.5 to 23.5 percent by volume). Air- purifying respirators can be classified as follows:

- Particulate removing respirators, which filter out dusts, fibers, fumes, mists and microorganisms. These respirators may be single-use disposable respirators (e.g. filtering facepieces) or respirators with replaceable filters;

**NOTE: Surgical masks are not classified as respirators and do not provide protection against air contaminants. They are never to be used in place of an air-purifying respirator.**

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**NOTE: Single-strap dust masks are classified as respirators, but are not NIOSH approved, and may not be used for respiratory protection; they are only to be used for non-toxic nuisance dusts.**

- Gas- and vapor-removing respirators, which remove specific individual contaminants or a combination of contaminants by absorption, adsorption or chemical reaction. Gas masks and chemical-cartridge respirators are examples of gas- and vapor-removing respirators;
- Combination particulate/gas- and vapor-removing respirators, which combine the respirator characteristics of both kinds of air-purifying respirators;
- Powered air-purifying respirators (PAPR), which operate on the same principle as other air-purifying respirators, but rely on a blower unit to move air through filters and deliver it to the user. They can remove particulate and/or gas/vapor contaminants depending on the type of filter they are provided with.
- This type of respirator must not be used with chemicals with poor warning properties such as some examples of chemical listed below:

Arsine	Bromine	Carbon Monoxide
Chloroform	Diisocyanates	Dimethylaniline
Dimethylsulfate	Hydrogen Cyanide	Hydrogen Fluoride
Hydrogen Selenide	Methanol	Methyl Bromide
Methyl Chloride	Methylene Chloride	Nickel Carbonyl
Nitric Acid	Nitrobenzene	Nitrogen Oxides
Nitroglycerin	Nitromethane	Ozone
Phosgene	Phosphine	Phosphorous Trichloride
Stibine	Vinyl Chloride	

***Identification of Respirator Cartridges***

Respirator cartridges are designed to protect against individual or combinations of potentially hazardous atmospheric contaminants, and are specifically labeled and color-coded to indicate the type of protection they provide.

The NIOSH approval label on the cartridges will also specify the maximum concentration of contaminant(s) for which the cartridge is approved. For example, a label may read:

"DO NOT WEAR IN ATMOSPHERES IMMEDIATELY DANGEROUS TO LIFE.

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MUST BE USED IN AREAS CONTAINING AT LEAST 20 PERCENT OXYGEN. DO NOT WEAR IN ATMOSPHERES CONTAINING MORE THAN ONE-TENTH PERCENT ORGANIC VAPORS BY VOLUME. REFER TO COMPLETE LABEL ON RESPIRATOR OR CARTRIDGE CONTAINER FOR ASSEMBLY, MAINTENANCE, AND USE."

### **Service Life of Air-Purifying Respirator Filters and Cartridges**

The filters or cartridges of air-purifying respirators are intended to be used until:

- Filter resistance precludes further use (i.e. breathing becomes difficult);
- The chemical sorbent is expended as signified by a specific warning property, e.g., odor, taste, end of service life indicator (ESLI); or,
- The end of the recommended service life has been reached.

If there is no ESLI-equipped cartridge appropriate for the conditions in the workplace, the manager of the affected employees must work with EH&S to implement an effective change schedule that will ensure cartridges are changed before the end of their service life, as required by CFR 1910.134(d)(3)(i)(B) <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.134>.

New cartridges or filters shall always be provided when a respirator is re-issued. When in doubt about the previous use of the respirator, obtain a replacement filter or cartridge.

### **Warning Signs of Respirator Failure**

If you suspect your respirator has become damaged during use, or that it is malfunctioning (i.e. breathing difficulty, detect odor/taste, respiratory irritation), immediately leave the contaminated area. Once outside, inspect it to ensure it is functioning properly before re-entering the contaminated space. If it is not functioning properly, replace it with a properly working respirator before re-entry. Ensure that the damaged respirator is removed from service immediately, labelled as not usable, and is repaired or discarded.

#### ***Particulate Air-Purifying***

When breathing difficulty is encountered with a particulate filter respirator (due to increased resistance resulting from partial clogging), the filter(s) must be replaced. Disposable filter (e.g. filtering facepiece) respirators must be discarded when wet, soiled or contaminated, or when medically required by patient infection prevention considerations.

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***Gas or Vapor Air-Purifying***

If, when using a gas or vapor respirator (chemical cartridge or canister), any of the warning properties are detected (e.g., odor, taste, eye irritation, or respiratory irritation), promptly leave the contaminated area and check for the following:

- Proper face seal;
- Damaged or missing respirator parts;
- Saturated or inappropriate cartridge or filter; or,
- End of service life indicator (ESLI).

If no deficiencies are observed, replace the cartridge or filter. If any of the warning properties appear again, the concentration of the contaminants may have exceeded the cartridge or filter design specification.

***Supplied Air Respirator***

When using an airline respirator, leave the contaminated area immediately if the compressor fails, if an air pressure drop is sensed, or if you are signaled to exit.

***Voluntary Respirator Use***

Under some circumstances, employees may wish to use respiratory protection equipment for their own comfort or sense of wellbeing, even when there is no recognized exposure hazard. In these cases, not all of OSHA's respiratory protection requirements apply (i.e., fit testing is not required). In order to voluntarily use respiratory protective equipment in this way, all of the following criteria must be met:

- Those employees who would like to voluntarily wear respiratory protective devices for comfort in the absence of recognized exposure hazards may do so; however, those employees must do so in full compliance with the Voluntary Respirator Use <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.134AppD>
- There is no recognized hazard or potential for over exposure;
- The respirator must be NIOSH certified;
- The respirator must be cleaned, stored, and maintained
- The respiratory protective equipment must not in itself present a hazard to the user;
- Note for respirators other than the disposable N-95 type, the employee who wishes to use a half/full face mask or PAPR must be medically cleared to do so. The Respiratory Protection Coordinator for the employee's area is responsible for ensuring this is done.

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- For N95's (such as dust masks, "duck bill" respirators), fit testing and medical clearance are not required for voluntary use.
- The employee must be given a copy of *Information for Employees using Respirators When Not Required Under the Standard* (see **Appendix A**); and,
- The employee and his/her supervisor must sign the release form. The form must be kept on file in the department's respiratory protection records.

Those employees who would like to voluntarily wear a respirator may purchase and wear their own respirator as long as the Supervisor and RPC approve it.

### **Care of Respiratory Protective Equipment**

In order to be effective and to properly protect the user, respirators must be regularly inspected, cleaned, and maintained. It is the responsibility of the respirator user to ensure that his or her respirator is inspected before each use, is kept in a clean and sanitary condition, is stored away from sources of contamination, is maintained properly, and that any problems with the equipment are reported immediately for repair or replacement. Disposable respirators should be discarded if they become soiled or contaminated, or at a minimum, at the end of each work shift or as directed by Infection Prevention.

#### ***Cleaning and Disinfecting***

The Occupational Safety and Health Administration (OSHA) <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.134AppB2> has set guidelines for the cleaning of respiratory protective equipment. These are summarized below. Alternatively, respiratory protective equipment can be cleaned according to the manufacturer's recommendations as long as the equipment is cleaned and disinfected in a way that does not damage it, and does not harm the user.

#### ***Storage***

Respiratory protection equipment must be stored in a way that protects it from damage, dust, contamination, sunlight, chemicals, excessive moisture, and extreme temperatures. It must also be stored in a manner that prevents damage to or deformation of the facepiece or valves. Additionally, emergency respirators must be stored according to any manufacturer's recommendations in an easily accessible way in the workplace, and must be in containers clearly labeled as containing emergency respirators.

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***Inspection***

When using respirators routinely, these inspections must be performed before each use and during each cleaning. The following checks are required as part of the respirator inspection procedure:

- Respirator function;
- Tightness of connections;
- Condition of the facepiece, hood or headpiece, head straps, valves, connecting tubes, and cartridges or other filters;
- Pliability of any elastomeric parts;
- Signs of cracking, discoloration, or other signs of aging;
- PAPR airflow and battery/wiring condition.

**Respirators found to be defective or in need of repairs must be removed from service immediately.**

***Repairs***

When repairing a respirator or replacing cartridges, valves or other components, only parts approved for the particular make and model of respirator shall be used. Use of other parts will invalidate the NIOSH approval. No attempts, under any circumstances, should be made to change, modify, or improve any respiratory protection device. Contact EH&S for further information.

***Service Life/Filter Change Schedules***

Some air purifying respirator cartridges/filters are equipped with end-of-service-life indicators (ESLI), that warn the respirator user of the approach of the end of adequate respiratory protection. If no ESLI-equipped filter is available for the specific contaminant(s) of concern, a change-out schedule must be developed and implemented for filters and cartridges based on objective information or data that will ensure that are changed before the end of their service life to prevent contaminant breakthrough. The Supervisor and/or EH&S shall maintain a record of the information and data relied upon to determine the cartridge change out schedule. Employees voluntarily wearing APRs regularly with organic vapor cartridges shall change the cartridges on their respirators if they detect breakthrough, i.e., odor or irritation.

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Note: OSHA has chemical specific standards for the following substances, which dictate specific change out schedules

- **Acrylonitrile**
- **Benzene**
- **Butadiene**
- **Formaldehyde**
- **Vinyl chloride**

Employees wearing APRs or PAPRs with P100 filters for protection against dust and other particulates shall change the cartridges on their respirators when they first begin to experience difficulty breathing (i.e., resistance) while wearing their respirators.

Consider the following to assist with determining change out schedules for filters and cartridges. Contact EH&S for assistance:

- Availability of objective data from the manufacturers for the particular make/model of the respirator.
- Confirm appropriate selection of cartridge for the work place environment.
- Contact EH&S for change out schedule for mixtures due to their complexity.
- Employees voluntarily wearing APRs regularly with organic vapor cartridges shall change the cartridges on their respirators as recommended by the respirator/cartridge manufacturer.

### **Quality of Supplied Air (from tanks or compressors)**

Supplied air respirators provide high levels of protection, but only if the air source is free of contamination and other hazards. OSHA has issued the following requirements for the quality of supplied air, along with requirements for air supplying equipment. These requirements are:

- Compressed and liquid oxygen shall meet the United States Pharmacopoeia requirements for medical or breathing oxygen;
- Compressed breathing air shall meet at least the requirements for Type 1-Grade D breathing air described in ANSI/Compressed Gas Association Commodity Specification for Air, G-7.1-1989, to include:
  - Oxygen content (v/v) of 19.5%-23.5%;
  - Hydrocarbon (condensed) content of 5 milligrams per cubic meter of air or less;
  - Carbon monoxide (CO) content of 10 ppm or less;

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- Carbon dioxide content of 1,000 ppm or less;  
and,
- Lack of noticeable odor.
- Compressed oxygen shall not be used in atmosphere- supplying respirators that have previously used compressed air.
- Oxygen concentrations greater than 23.5% shall be used only in equipment designed for oxygen service or distribution.

Compressors used to supply breathing air to respirators shall be constructed, situated, and maintained so as to:

- Prevent entry of contaminated air into the air-supply system;
- Minimize moisture content so that the dew point at 1 atmosphere pressure is 10 degrees F (5.56 °C) below the ambient temperature;
- Have suitable in-line air-purifying sorbent beds and filters to further ensure breathing air quality. Sorbent beds and filters shall be maintained and replaced or refurbished periodically following the manufacturer's instructions;
- Have a tag containing the most recent sorbent bed change date and the signature of the person authorized to perform the change. The tag shall be maintained at the compressor;
- Ensure that, for compressors that are not oil-lubricated, carbon monoxide levels in the breathing air shall not exceed 10 ppm;
- Ensure that, for oil-lubricated compressors, a high-temperature or carbon monoxide alarm, or both, shall be used to monitor carbon monoxide levels. If only high-temperature alarms are used, the air supply shall be monitored at intervals sufficient to prevent carbon monoxide in the breathing air from exceeding 10 ppm;
- Ensure that breathing air couplings are incompatible with outlets for non-respirable worksite air or other gas systems and no asphyxiating substance shall be introduced into breathing airlines; and,
- Ensure that breathing gas containers are marked in accordance with the NIOSH Respirator Certification Standard, 42 CFR part 84.

### **Medical Evaluation and Questionnaire**

Using a respirator may place a physiological burden on an employee. The respirator's weight, breathing resistance, and tendency to trap heat can all contribute to an increased workload and increased fatigue. In order to ensure that this potential for increased exertion does not place the employee at medical risk, the employee must receive a medical evaluation and a medical clearance. This medical evaluation and clearance shall be performed by a physician or other qualified, licensed health care professional (PLHCP) under the guidance and supervision of University Health

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Service's (UHS) Occupational Health Unit or Strong Memorial Hospital's Employee Health Program. OSHA's mandatory medical clearance questionnaire is located in **Appendix C** of this document. The medical evaluation shall also include any tests, procedures, or other information that the evaluating PLHCP feels appropriate.

The following information must be supplied in writing to UHS or SMH Employee Health by the employee's supervisor, prior to the employee's medical clearance:

- The type and weight of the respirator to be used by the employee;
- The duration and frequency of respirator use (including use for rescue and escape);
- The expected physical work effort;
- Temperature and humidity extremes that may be encountered;
- Additional protective clothing and equipment to be worn; and,
- Any additional information requested by UHS or SMH Employee Health.

***Medical Determination***

Upon completion of the medical evaluation, UHS or SMH Employee Health shall provide the employee, and his or her supervisor with a statement of the employee's ability or inability to wear a respirator, any limitations on respirator use due to medical or work conditions, and the need (if any) for follow-up medical evaluations. Additionally, UHS and SMH Employee Health must provide a statement that the employee has been given a copy of the medical evaluation and medical determination results.

***Additional Medical Evaluations***

Additional medical evaluations shall be scheduled when:

- The employee reports signs or symptoms that are related to respirator use or the employee's ability to use a respirator;
- UHS, SMH Employee Health, EH&S, or the employee's supervisor requests a re-evaluation;
- Observation of the employee indicates a need for re-evaluation; and/or,
- There are changes in the workplace or task that may significantly increase the employee's exertion while wearing a respirator (i.e., physical work changes, temperature changes, added protective clothing, etc.).

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***Employees Who Cannot Be Medically Cleared***

For those employees who cannot be medically cleared to wear negative pressure respirators, the University shall provide the employee with a suitable powered air-purifying respirator (PAPR), if available and appropriate, and if the employee can be medically cleared for its use. The University may also accommodate the employee in other ways as recommended by UHS, SMH Employee Health, EH&S, the supervisor, and representatives of Employee Relations, Personnel, and/or other employment-related University departments. Employees who perform tasks which require PAPRs or supplied air respirators and who cannot be medically cleared shall also be accommodated according to safety, medical, personnel, and legal procedures and requirements.

**Fit Testing**

In order to ensure that respiratory protective equipment provides a good fit, and therefore good protection without excessive leaks, employees must successfully complete a fit test before any tight fitting respiratory protection equipment can be used (except on a voluntary basis). Employees shall be fit tested with the same model, size, and style of respirator that they will use, and shall be fit tested at least annually. Employees must be fit tested for each and every make and model of respirator they use. Employees shall also be fit tested whenever:

- A different size, style, or model of respirator is to be used;
- There are changes in the employees' physical condition that could affect the respirator seal (such as an obvious change in weight, facial scarring, dental changes, or surgeries involving the face and head); and/or,
- The employee reports a change in the fit of his or her respirator.

**Employees shall not use any respirator for which they have not been medically cleared and trained, nor shall they use any tight fitting respirator unless they have been successfully fit tested.**

Fit testing shall be performed using one of the following OSHA approved Qualitative or Quantitative methods <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.134AppA>

***User Seal Checks***

Employees who use a tight fitting respirator are required to perform a user seal check to ensure that an adequate seal is achieved each time the respirator is worn. The respirator

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user must check his or her seal by performing both positive and negative seal checks using the procedures in OSHA <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.134AppB1>. User seal checks are not substitutes for qualitative or quantitative fit tests. If both positive and negative pressure seal checks cannot be successfully completed, the employee must not use that respirator.

## **Training**

In order to provide adequate protection, employees must be trained on the proper use and care of respiratory protective equipment. This training shall be given before initial use and at least annually thereafter, and shall include the following points:

- Why the respirator is necessary;
- How improper fit, usage, or maintenance can compromise the protective effect of the respirator;
- The limitations and capabilities of the respirator;
- 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;
- Procedures for maintenance and storage of the respirator;
- How to recognize medical signs and symptoms that may limit or prevent the effective use of respirators; and,
- The general requirements of this section.

Training and tests are administered via MyPath. Employees are required to take the training prior to their appointment with UHS and SMH Employee Health.

Employees shall be re-trained at least annually, whenever there are changes in the workplace or task that make previous training obsolete, if it becomes apparent that the employee's knowledge of respiratory protection is inadequate, and when any other situation arises that indicates a need for retraining.

When training has been completed via MyPath, UHS or SMH Employee Health shall require documentation of training completion prior to conducting fit testing.

Research and Clinical laboratory personnel receive basic annual respirator training as part of their mandatory annual lab safety training. Individual departments are required to provide annual site- and/or task-specific training to their personnel.

Annual training for the Spill Response Team, Pest Control, Asbestos Control, and the Hazardous Waste Management Unit is conducted through MyPath Training; training records for these personnel are maintained by EH&S.

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### **Record Keeping**

UHS, SMH Employee Health and EH&S retain written information regarding medical evaluations, fit testing, and the University of Rochester Respiratory Protection Program.

Records of medical evaluations are retained by SMH Employee Health and UHS and made available in accordance with 29 CFR 1910.1020 <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.1020>

Established records of qualitative and quantitative fit tests are retained by UHS, SMH Employee Health and EH&S and include:

1. The name or identification of the employee tested;
2. Type of fit test performed;
3. Specific make, model, style and size of respirator tested;
4. Date of test; and,
5. The pass/fail results for QLFTs or the fit factor and strip chart recording or other recording of the test results for QNFTs.

These records are retained for respirator users until the next fit test is administered.

EH&S maintains annual fit test records for the Spill Response Team, Pest Control, Asbestos Control, and the Environmental Compliance Unit.

### **Respiratory Protection Program Audit & Evaluation**

OSHA requires that employers conduct evaluations of the workplace as necessary to ensure proper implementation of the program and consult with employees to ensure proper use.

Respiratory Protection Program Coordinators shall work with EH&S to conduct periodic audits of the University's Respiratory Protection Program. The primary tool used to evaluate the program is the Respiratory Protection Program Evaluation Form, found in **Appendix B** of this document.

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**VI. REFERENCES**

- 29 CFR 1910.134: Respiratory Protection
- 1910.134 App A- Fit Testing Procedures  
(<https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.134AppA>)
- 1910.134 App B-1- User Seal Check Procedures  
(<https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.134AppB1>)
- 1910.134 App B-2- Respirator Cleaning Procedures  
(<https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.134AppB2>)
- 1910.134 App D- Information for Employees Using Respirators When Not Required Under Standard  
(<https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.134AppD>)
- 1910.1020 – Access to employee exposure and medical records  
(<https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.1020>)

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**VII. APPENDICES/FORMS**

**Appendix A, Information and Acknowledgement Form for Employees using Respirators When Not Required Under the OSHA Standard Sec. 29 CFR 1910.134, Appendix D**

You have indicated that you wish to voluntarily wear a respiratory protection device. The following information is required by OSHA to be supplied to employees who wish to use respiratory protection devices voluntarily. Please read this information and sign the form to indicate that you have received this information:

Respirators are an effective method of protection against designated hazards when properly selected and worn. Respirator use is encouraged, even when exposures are below the exposure limit, to provide an additional level of comfort and protection for workers. However, if a respirator is used improperly or not kept clean, the respirator itself can become a hazard to the worker. Sometimes, workers may wear respirators to avoid exposures to hazards, even if the amount of hazardous substance does not exceed the limits set by OSHA standards. If

your employer provides respirators for your voluntary use, or if you provide your own respirator, you need to take certain precautions to be sure that the respirator itself does not present a hazard. You should do the following:

1. Read and heed all instructions provided by the manufacturer on use, maintenance, cleaning and care, and warnings regarding the respirators limitations.
2. Choose respirators certified for use to protect against the contaminant of concern. NIOSH, the National Institute for Occupational Safety and Health of the U.S. Department of Health and Human Services, certifies respirators. A label or statement of certification should appear on the respirator or respirator packaging. It will tell you what the respirator is designed for and how much it will protect you.
3. Do not wear your respirator into atmospheres containing contaminants for which your respirator is not designed to protect against. For example, a respirator designed to filter dust particles will not protect you against gases, vapors, or very small solid particles of fumes or smoke.
4. Wear the respirator in non-hazardous areas only (voluntary respirator use is permitted in non-hazardous atmospheres only).
5. Keep track of your respirator so that you do not mistakenly use someone else's respirator.

I acknowledge that I have read the University's Respiratory Protection Program including the section on Voluntary (Comfort) Respirator Use, and have received a copy of the information for voluntary use of respirators when not required under the Standard Sec. 1910.134. I have discussed these documents with my supervisor, have received medical clearance, if required, to wear a respirator, and am in compliance with the University Respiratory Protection Program. I will receive a signed copy of this document from my supervisor for my records.

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Employee Name: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Supervisor Signature: \_\_\_\_\_ Date: \_\_\_\_\_

This document must be kept on file in the user's department respiratory protection records

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**Appendix B- Respiratory Protection Program Evaluation Form**

**University of Rochester  
RESPIRATOR PROGRAM ASSESSMENT CHECKLIST**

RPC Name: \_\_\_\_\_ \*RPC – Respiratory Protection Coordinator

Department: \_\_\_\_\_

Division: \_\_\_\_\_

Date of Assessment: \_\_\_\_\_

Respirator Program Location(s): \_\_\_\_\_

Number of people in this respirator program: \_\_\_\_\_

Types of Respirator(s) Used:     Filtering face piece (includes dust mask, N-95, P99, etc.)  
     Cartridge (half or full face)     Powered Air Purifying (PAPR)  
     Airline     SCBA

**1Program Management/Documentation**

	<u>Yes</u>	<u>No</u>	<u>N/A</u>
1.1 Does the RPC have a current list showing the names of all respirator users?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.2 Are up-to-date SOPs in place covering all tasks that use a respirator	<input type="checkbox"/>	<input type="checkbox"/>	
1.3 Do SOPs, JHAs or local department procedures:			
1.3.1Address facial hair, prescription lenses, and other conditions that interfere with fit?	<input type="checkbox"/>	<input type="checkbox"/>	
<i>Covered in the UR Respiratory Protection Program document</i>			
1.3.2Contain disposal information for cartridges, dust masks, etc.?	<input type="checkbox"/>	<input type="checkbox"/>	
1.3.3Contain local storage information?	<input type="checkbox"/>	<input type="checkbox"/>	
1.3.4Contain inspection, cleaning and disinfection procedures?	<input type="checkbox"/>	<input type="checkbox"/>	
1.3.5Cover limitations of use?	<input type="checkbox"/>	<input type="checkbox"/>	
1.3.6Address voluntary use situations?	<input type="checkbox"/>	<input type="checkbox"/>	
<i>Voluntary respirator use must be in full compliance with OSHA 29 CFR 1910.134, Appendix D</i>			
1.4 Are SOPs / local procedures readily available to users?	<input type="checkbox"/>	<input type="checkbox"/>	
1.5 Are the manufacturers' instructions (or equivalent) for all department respiratory equipment readily available to users?	<input type="checkbox"/>	<input type="checkbox"/>	
1.6 Are procedures in place to ensure all contract labor employees (non-employees being supervised by UR) who are using respirators, have up to date medical clearance, training and fit testing?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**2Respirator Selection**

2.1 Has the respirator selection for each use been discussed with UR Environmental, Health & Safety?	<input type="checkbox"/>	<input type="checkbox"/>	
2.2 Is documentation of respirator selection available?	<input type="checkbox"/>	<input type="checkbox"/>	
2.3 Have cartridge change out schedules been established and <u>documented</u> for all tasks using cartridge respirators without end-of-service-life indicators (ESLI)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**3Medical Evaluation/Fit Testing**

3.1 Do all users have up to date medical clearance?	<input type="checkbox"/>	<input type="checkbox"/>	
3.2 Have all users of tight fitting respirators been fit tested in the last 12 months?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**4RPC and Respirator User Training**

- |  | <u>Yes</u>               | <u>No</u>                | <u>N/A</u> |
|--|--------------------------|--------------------------|------------|
| 4.1 Has the RPC attended Initial RPC Training?   | <input type="checkbox"/> | <input type="checkbox"/> |            |
| 4.2 Have all respirator users received department-specific respirator training? This may include review of SOPs, JHA's, procedures or formal training. | <input type="checkbox"/> | <input type="checkbox"/> |            |

**5Maintenance of Respirators**

- |  |                          |                          |                          |
|--|--------------------------|--------------------------|--------------------------|
| 5.1 Are single use respirators (dust mask, N-95, etc.), discarded after use?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5.2 Are shared respirators cleaned and disinfected before use by another person?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5.3 Are respirators, issued to individuals, periodically inspected by properly trained personnel?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5.4 Is respirator equipment stored in an area that is clean, avoids temperature extremes, free of damaging chemicals, excessive moisture, out of direct sunlight and prevents deformity of the face piece? | <input type="checkbox"/> | <input type="checkbox"/> |                          |

**6Portable Compressor/Cylinder Use**

- |  |                          |                          |                          |
|--|--------------------------|--------------------------|--------------------------|
| 6.1 If portable compressors are used, is there a written procedure for the use and maintenance?        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6.2 Has the portable compressor undergone periodic preventative maintenance and inspection?            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6.3 Are certificates of breathing air quality in cylinders available while the cylinder is being used? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

**Respiratory Protection Program Feedback**

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**Appendix C- OSHA's Mandatory Medical Clearance Questionnaire**

**UNIVERSITY OF ROCHESTER  
UNIVERSITY HEALTH SERVICE**

**RESPIRATOR MEDICAL EVALUATION QUESTIONNAIRE  
N95, PAPR, or 1/2 Face Respirator**

Appendix C to Sec. 1910.134: OSHA Respirator Medical Evaluation Questionnaire  
(Mandatory)

<b>UHS OFFICE USE ONLY</b>
<input type="checkbox"/> Reviewed and Cleared _____ Initials
<input type="checkbox"/> Need to check questions
<input type="checkbox"/> Comments

**To Employee: Can you read?**  Yes  No

Your employer must allow you to answer this questionnaire during normal working hours, or at a time and place that is convenient to you. To maintain your confidentiality, your employer or supervisor must not look at or review your answers, and your employer must tell you how to deliver or send this questionnaire to the health care professional who will review it.

**Part A. Section 1. (Mandatory) The following information must be provided by those who have been selected to use any of the above types of respirators (please print).**

1. Today's date: \_\_\_\_\_
2. Your name: \_\_\_\_\_
3. Your Employee/UR ID #: \_\_\_\_\_
4. Date of Birth : \_\_\_\_\_ Sex:  Male  Female
5. Your height: \_\_\_\_\_ ft. \_\_\_\_\_ in.
6. Your weight: \_\_\_\_\_ lbs.
7. Your job title/student status: \_\_\_\_\_ Unit/Dept. \_\_\_\_\_
8. A phone number where you can be reached by the health care professional who reviews this questionnaire (include the area code): \_\_\_\_\_ Pager: \_\_\_\_\_
9. The best time to call you at this number: \_\_\_\_\_
10. Do you know how to contact the health care professional who will review this questionnaire?  Yes  No  
(Call University Health Service, 275-4955)
11. Check the type of respirator you will use on this job (you can check more than one category):
  - a)  N, R, or P disposable respirator (filter-mask, i.e. TB mask (N95), non-cartridge type only).
  - b)  Other type (for example, half- or full-face piece type, powered-air purifying, supplied-air, self-contained breathing apparatus).

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12. Have you worn a respirator?  Yes  No  
If yes, what type(s): \_\_\_\_\_

13. List chronic medical problems: \_\_\_\_\_  
\_\_\_\_\_  None

14. List any medications you currently take: \_\_\_\_\_  
\_\_\_\_\_  None

**Part A. Section 2. (Mandatory) Questions 1 through 9 below must be answered by those who have been selected to use any of the above types of respirators (please check "yes" or "no").**

1. Do you **CURRENTLY** smoke tobacco, or have you smoked tobacco in the last month? 1.  Yes  No  
If yes, what (cigarettes, cigars, pipe etc) and # per day: \_\_\_\_\_

2. Have you ever had any of the following conditions?  
a) Seizures (fits):  Yes  No  
b) Diabetes (sugar disease):  Yes  No  
c) Allergic reactions that interfere with your breathing:  Yes  No  
d) Claustrophobia (fear of closed-in places):  Yes  No  
e) Trouble smelling odors:  Yes  No

**Explain Yes response**

\_\_\_\_\_

3. Have you ever had any of the following pulmonary or lung problems?  
a) Asbestosis:  Yes  No  
b) Asthma:  Yes  No  
c) Chronic bronchitis:  Yes  No  
d) Emphysema:  Yes  No  
e) Pneumonia:  Yes  No  
f) Tuberculosis:  Yes  No  
g) Silicosis:  Yes  No  
h) Pneumothorax (collapsed lung):  Yes  No  
i) Lung cancer:  Yes  No  
j) Broken ribs:  Yes  No  
k) Any chest injuries or surgeries:  Yes  No  
l) Any other lung problem that you've been told about:  Yes  No

**Explain Yes response**

\_\_\_\_\_

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4. Do you **currently** have any of the following symptoms of pulmonary or lung illness?
- a) Shortness of breath: 4. a)  Yes  No
  - b) Shortness of breath when walking fast on level ground or walking up a slight hill or incline: b)  Yes  No
  - c) Shortness of breath when walking with other people at an ordinary pace on level ground: c)  Yes  No
  - d) Have to stop for breath when walking at your own pace on level ground: d)  Yes  No
  - e) Shortness of breath when washing or dressing yourself: e)  Yes  No
  - f) Shortness of breath that interferes with your job: f)  Yes  No
  - g) Coughing that produces phlegm (thick sputum): g)  Yes  No
  - h) Coughing that wakes you early in the morning: h)  Yes  No
  - i) Coughing that occurs mostly when you are lying down: i)  Yes  No
  - j) Coughing up blood in the last month: j)  Yes  No
  - k) Wheezing: k)  Yes  No
  - l) Wheezing that interferes with your job: l)  Yes  No
  - m) Chest pain when you breathe deeply: m)  Yes  No
  - n) Any other symptoms that you think may be related to lung problems: n)  Yes  No

**Explain Yes response**

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5. Have you ever had any of the following cardiovascular or heart problems?
- a) Heart attack: 5. a)  Yes  No
  - b) Stroke: b)  Yes  No
  - c) Angina: c)  Yes  No
  - d) Heart failure: d)  Yes  No
  - e) Swelling in your legs or feet (not caused by walking): e)  Yes  No
  - f) Heart arrhythmia (heart beating irregularly): f)  Yes  No
  - g) High blood pressure: g)  Yes  No
  - h) Any other heart problem that you've been told about: h)  Yes  No

**Explain Yes response**

---

6. Have you ever had any of the following cardiovascular or heart symptoms:
- a) Frequent pain or tightness in your chest: 6. a)  Yes  No
  - b) Pain or tightness in your chest during physical activity: b)  Yes  No
  - c) Pain or tightness in your chest that interferes with your job: c)  Yes  No
  - d) In the past two years, have you noticed your heart skipping or missing a beat: d)  Yes  No
  - e) Heartburn or indigestion that is not related to eating: e)  Yes  No
  - f) Any other symptoms that you think may be related to heart or circulation problems: f)  Yes  No

**Explain Yes response**

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7. Do you currently take medication for any of the following problems?

- |                                |  |
|--------------------------------|--|
| a) Breathing or lung problems: | 7. a) <input type="checkbox"/> Yes <input type="checkbox"/> No |
| b) Heart trouble:              | b) <input type="checkbox"/> Yes <input type="checkbox"/> No    |
| c) Blood pressure:             | c) <input type="checkbox"/> Yes <input type="checkbox"/> No    |
| d) Seizures (fits):            | d) <input type="checkbox"/> Yes <input type="checkbox"/> No    |

**Explain Yes response**

---

8. If you've used a respirator, have you ever had any of the following problems:

- (If you've never used a respirator, check the following box and go to question 9)
- |   |  |
|---|--|
| a) Eye irritation:  | 8. a) <input type="checkbox"/> Yes <input type="checkbox"/> No |
| b) Skin allergies or rashes:  | b) <input type="checkbox"/> Yes <input type="checkbox"/> No    |
| c) Anxiety:   | c) <input type="checkbox"/> Yes <input type="checkbox"/> No    |
| d) General weakness or fatigue:                                     | d) <input type="checkbox"/> Yes <input type="checkbox"/> No    |
| e) Any other problem that interferes with your use of a respirator: | e) <input type="checkbox"/> Yes <input type="checkbox"/> No    |

**Explain Yes response**

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9. Do you have a full face beard, or facial hair extending to the neckline? 9.  Yes  No

10. Would you like to talk to the health care professional who will review this questionnaire about your answers to this questionnaire? 10.  Yes  No

**Explain Yes response**

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**Name:** \_\_\_\_\_ **D.O.B.:** \_\_\_\_/\_\_\_\_/\_\_\_\_

**FOR UHS USE ONLY:**

1.) MEDICALLY CLEARED  
Provider: \_\_\_\_\_ Date \_\_\_\_/\_\_\_\_/\_\_\_\_

2.) NOT MEDICALLY CLEARED PENDING FURTHER INFORMATION  
Provider: \_\_\_\_\_ Date \_\_\_\_/\_\_\_\_/\_\_\_\_

3.) NOT MEDICALLY CLEARED PENDING PHYSICAL ASSESSMENT  
Provider: \_\_\_\_\_ Date \_\_\_\_/\_\_\_\_/\_\_\_\_

- 3a) Respirator Physical
- 3b) Pulmonary Function Test
- 3c) Electrocardiogram

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**\*\*Physician Comment:** \_\_\_\_\_

- RESPIRATOR TYPE:**
- N95: Halyard      SIZE:  Small     Regular
  - N95: 3M 8512 (One size)
  - N95: Other Mask \_\_\_\_\_
- SIZE: \_\_\_\_\_
- Cartridge    Model \_\_\_\_\_
- Half face \_\_\_\_\_ SIZE: \_\_\_\_\_
- Full face \_\_\_\_\_ SIZE: \_\_\_\_\_
- PAPR initial training
- PAPR annual medical clearance

**PROVIDER SIGNATURE:** \_\_\_\_\_ **DATE:** \_\_\_\_\_

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I have reviewed the Information Fact Sheet on the TB Respirator Mask, PAPR, or cartridge. I understand the use, limitations, and care of NIOSH-Approved N95 Particulate Respirator Mask, and/or PAPR .TB education has been reviewed and I have had an opportunity to ask questions.

Employee/student/resident name (please print): \_\_\_\_\_

Date of birth \_\_\_\_\_

**SIGNATURE:** \_\_\_\_\_

Unit/Dept: \_\_\_\_\_

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**VIII. REVISION HISTORY**

Date	Revision No.	Description
3/1998	1	Rewritten to comply with 29 CFR 1910.134y
11/2001	2	Minor updates
1/2002	3	Minor changes
10/2002	4	Minor changes
8/2004	5	Changes result from revocation of TB Respirator Protection Standard 1910.139
10/2006	6	Assigned Protection Factors for Respirators added
9/2009	7	Appendix A revised
11/2015	8	Reviewed and updated as needed
11/2016	9	Reviewed and updated as needed
4/2017	10	Reviewed and updated as needed
11/2018	11	Reviewed, added Respiratory Protection Coordinator and program evaluation information
1/2020	12	Reviewed and updated as needed
3/2020	13	Voluntary use information added
3/2022	14	Reviewed and updated as needed