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RESPIRATORY PROTECTION PROGRAM THE UNIVERSITY OF PITTSBURGH

1. Purpose

Faculty and staff at the University of Pittsburgh must be protected from inhaling atmospheres that exceed hazardous concentrations of dusts, fumes, mists, vapors, gases and microorganisms. This University of Pittsburgh Respiratory Protection Program provides information, training, and equipment necessary for proper selection, use and maintenance of respirators. The Program is reviewed annually to address the changing needs of the University.

The University takes prudent measures to implement engineering or work practice controls to eliminate hazardous conditions. Where such controls are inadequate or prove ineffective, respiratory protection may be required. This document serves as a standard operating procedure (SOP) for faculty and staff who are required to wear a respirator during work assignments. These guidelines permit some exemptions from requirements for respirator use during emergencies or for respirators worn on a voluntarily basis. These exemptions are subject to the discretion of the Department of Environmental Health & Safety (EH&S).

2. References

1998 OSHA Respiratory Protection Standard (29 CFR Part 1910.134), 1996 NIOSH revision of particulate respirator ratings and 2009 OSHA protection factor modifications.

3. Respirator Use

The University of Pittsburgh will provide appropriate respiratory protection when it is necessary to protect the health of an employee. The procedure to obtain a respirator is detailed in Appendix A. Respiratory protection shall be used:

- 3.1. For non-routine operations involving exposures to air contaminants exceeding occupational exposure limits.
- 3.2. For emergency operations involving air contaminant exposures that may be above allowable limits during a spill or during the investigation of a possible terrorist act.
- 3.3. As a temporary measure to reduce employee exposures to air contaminants until engineering or work practice controls can be implemented.
- 3.4. For permanent exposure control when engineering controls are not feasible.
- 3.5. As a precaution to prevent exposures, such as during asbestos abatement, lead abatement, or chemical spill cleanup.

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3.6. To prevent exposures to hazardous microorganisms transmissible via aerosol route, for example when working in BSL3 lab.

4. **Medical Evaluations**

Prior to assigning respirators to workers, a determination must be made to assure that employees are physically able to perform the work while wearing the equipment. This medical evaluation must be initiated by having each potential respirator wearer complete the Respiratory Protection Medical Form (Appendix B). This confidential questionnaire is reviewed by a licensed health care provider who determines if the employee has sufficient health status to safely wear respiratory protection, or if additional medical examination is needed. The initial medical evaluation and subsequent medical exams deemed necessary by the University's designated clinicians are provided at no cost to the employee.

5. **Responsibilities**

5.1. Deans, Directors, and Department Chairpersons have overall responsibility for implementation of the Respiratory Protection Program within their departments.

5.2. The employee's immediate supervisor is responsible for arranging and enforcing the safe use of respiratory protection. The supervisor is also responsible to:

5.2.1. Consider engineering or administrative controls that would eliminate the need for respiratory protection.

5.2.2. Work with EH&S to implement the Respiratory Protection Program, especially if engineering or work practice controls are determined to be infeasible.

5.2.3. Develop Standard Operating Procedures (SOPs) for department activities that require respirator use.

5.2.4. Report to EH&S any accidents, injury or illness that may be related to the use of respiratory protection.

5.3. Department of Environmental Health and Safety is responsible to:

5.3.1. Develop this Program and the associated technical and administrative decisions necessary for program implementation.

5.3.2. Monitor the workplace to determine employee exposures and the need for respiratory protection.

5.3.3. Consult with the Chemical Hygiene Officer (CHO) or department supervision to select the best type of respirator for their purpose.

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5.3.4. Perform fit tests on respirator wearers upon hire or upon assignment to a position requiring the use of respiratory protection, and annually thereafter.

5.3.5. Train employees required to wear respirators on the use, care, and maintenance of the specific respirator to be used.

5.3.6. Conduct audits to determine program effectiveness.

5.4. Employees are responsible to:

5.4.1. Use only respirators issued or approved by EH&S in accordance with the training and fit testing received. Employees who wear respirators on a voluntary basis must abide by Appendix D of this Program.

5.4.2. Wear respirators only as required for designated tasks and in specified locations.

5.4.3. Check the face piece seal of the mask each time the respirator is worn.

5.4.4. Guard against damage to the respirator and report any malfunction to their supervisors.

5.4.5. Be clean-shaven in the area between the sealing surface of the respirator and the face. Facial hair must not interfere with operation of inhalation and exhalation valves.

5.4.6. If corrective lenses are used, the lenses should be worn with full face respirators that use special eyeglass frames designed to fit inside the face piece.

5.5. Department Chemical Hygiene Officers (CHOs) may serve as a liaison between the department and EH&S for the dissemination of information or resolution of concerns.

6. Selections and Use of Respirators

6.1.1. Only NIOSH approved respirators are to be used. One piece “nuisance “dust masks can be mistaken for NIOSH approved N-95 respirators. Look for a NIOSH label printed on the box and/or respirator.

6.1.2. All respirators shall be used and maintained in accordance with manufacturer’s instructions.

6.1.3. The selection of respirators depends upon the concentration of airborne contaminants likely to be encountered and the NIOSH protection factor assigned to each type of respirator as shown below:

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NIOSH RESPIRATOR TYPE AND ASSIGNED PROTECTION FACTORS (APF's)

The table below contains APF's for the types of respirators commonly used at the University.

Respirator Type	Filtering Face Piece	½ Mask	Full-Face	Helmet/Hood
Air Purifying	5	10	50	-
Powered Air Purifying Respirator	-	50	50	25

6.1.4. Procedures for wearing respirators:

- 6.1.4.1. Only clean, sanitized, and inspected respirators shall be worn by the individual for whom they were fit tested and approved.
- 6.1.4.2. A positive and negative pressure sealing check shall be performed on all tight fitting respirators.
- 6.1.4.3. If the fit "check" is successful, any remaining clothing and equipment can be donned, and the worker can proceed to the duties.
- 6.1.4.4. If not successful, the worker will contact the job supervisor for possible new fit test. A respirator fit "check" should be performed several times during the shift to re-test the fit of a respirator.
- 6.1.4.5. Each time an employee exits the work area; the respirator should be removed and washed before being placed into storage.

7. Limitations of Respirators

- 7.1. Air-purifying and powered air purifying respirators (PAPR) shall only be used in atmospheres that are not oxygen-deficient, not Immediately Dangerous to Life or Health (IDLH), or in atmospheres that do not exceed the protection factors listed above.
- 7.2. Cartridge or canister respirators for gases and vapors may only be used when the airborne hazard has a physical warning such as odor, if the cartridge has a color "end of service life indicator" (ESLI) which demonstrates chemical saturation, or as determined by risk assessment. A "Respirator Change Schedule" shall be established for each type of gas or vapor cartridge or canister used, based on the concentration of air contaminants present, the temperature and humidity in the work area, and the exertion level of employees. Contact EH&S for help in determining respirator service life.

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8. Inspecting and Donning the respirator

8.1. Air-Purifying Respirators:

- 8.1.1. Prior to donning the respirator, the wearer must check to ensure that all required parts are present and intact, and that the respirator is clean.
- 8.1.2. The respirator is donned by placing the device over the face by first fitting the chin into the respirator and pulling the face piece to the face;
- 8.1.3. Position the headbands around the crown of the head and the back of the neck;
- 8.1.4. Adjust the headbands, beginning with the lowest ones, until a tight, but comfortable fit is obtained; and
- 8.1.5. Perform a positive and negative pressure check.

8.2. Full or Half Face Powered-Air Purifying Respirators (PAPRs):

- 8.2.1. Prior to donning the respirator, the wearer must ensure that all required parts are present and intact; that the device is clean; and the battery is charged. Check the flow of air to the respirator using the supplier rotometer to assure acceptable air volume, typically 6 CFM.
- 8.2.2. The respirator is donned by placing the device over the face by first fitting the chin into the respirator and pulling the face piece to the face;
- 8.2.3. Position the headbands around the crown of the head and the back of the neck;
- 8.2.4. Adjust the headbands, beginning with the lowest ones, until a tight, but comfortable fit is obtained.
- 8.2.5. Perform a negative pressure check each time respirator is donned as discussed previously by closing off the breathing tube and then,
- 8.2.6. Connect the breathing tube to the respirator and the motor to a fully charged battery pack and the belt pack is fastened to the small of the back.

8.3. Helmet or Hood Type PAPR Respirators:

- 8.3.1. Prior to donning, the wearer must ensure all required parts are present and intact; the device is clean, there is sufficient airflow to the respirator hood or helmet, and all alarms are functioning properly.

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8.3.2. The respirator is donned by fitting the filter unit and/or power pack around the waist.

8.3.3. After adjusting the helmet to fit snugly on the head, the helmet is placed on the head.

8.3.4. The face shield or hood is snapped down into position, with the chin protector fitting under the chin and covering any facial hair.

8.3.5. The power is turned on prior to entering the hazard area.

8.4. Disposable respirators (filtering face pieces):

8.4.1. Disposable respirators or dust masks should not be used in situations that require protection from hazardous dust or chemicals unless fit tested to an individual.

8.4.2. Disposable respirators shall be NIOSH approved as N-95 or better.

8.4.3. Disposable respirators must be fitted and in place prior to entering the work area.

8.4.4. Employees who wear dust masks on a voluntary basis are not generally included in the University's Respiratory Protection Program, however, EH&S approval to verify adequate protection and effective use is necessary. A medical evaluation questionnaire and initial fit test is usually required for voluntary users of filtering facepiece respirators of N-95 or better.

9. Fit Testing

9.1. EH&S will perform qualitative fit testing for filtering face piece, air-purifying respirators following protocols outlined in Appendix A of the OSHA standard (1910.134).

9.2. EH&S also uses an OHD Fit Tester 3000 to check the fit of mandatory use respirators with sealing face pieces.

9.3. The following exercises will be performed while the face-piece seal is being tested. Each exercise is performed for approximately one minute:

9.3.1. normal breathing;

9.3.2. deep breathing (deep and regular);

9.3.3. turning head from side-to-side, while inhaling;

9.3.4. nodding head up-and-down, while inhaling;

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9.3.5. talking aloud and slowly for several minutes, counting to 100, or reading a brief paragraph.

9.4. Fit testing will be conducted prior to issuing a respirator and annually thereafter for mandatory respirator users.

10. **Cleaning, Maintenance and Storage Procedures**

The cleaning, inspection and storage of respirators is the responsibility of employees wearing the respirators. Employees shall not attempt to repair respirators. Note: Refer to owner's manual for Powered Air Purifying Respirators (PAPR).

10.1. The face piece components are disassembled and soaked in warm soapy water, and visible residue is removed with a brush.

10.2. Parts are rinsed in clean water and allowed to air-dry.

10.3. All respirator parts are inspected for dirt, residue, and pliability of rubber or elastic straps, deterioration, cracks, tears, and holes prior to storage and donning.

10.4. Respirators with missing or defective parts must not be used and should be replaced.

10.5. All cleaned and inspected respirators should be placed in an airtight container such as plastic bags in a hazard-free area and stored in a position that does not distort the face piece.

11. **Training**

11.1. Department supervisors are trained in:

11.1.1. The capability and limitations of respiratory protection.

11.1.2. Selection and use of respirators for airborne contaminant protection.

11.1.3. Determining the nature of the hazards to which workers are exposed.

11.1.4. Their role in the University's "Respiratory Protection Program."

11.2. Employees are trained in:

11.2.1. Rationale for respiratory protection requirements for a particular job.

11.2.2. The respirator's ability to protect them from exposure.

11.2.3. The capabilities and limitations of the respirator selected.

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11.2.4. How to put on (don) the respirator, adjust it for proper fit and check the face piece seal.

11.2.5. Determining when and how to change the filters or chemical cartridges.

11.2.6. Recognizing signs or symptoms that may limit or prevent effective use.

11.2.7. Proper care, maintenance and storage of their respirator,

11.3. Voluntary respirator users are given a copy of Appendix D from the OSHA Standard or this document.

12. Program Evaluation

Regular inspections and evaluations should be conducted by department supervisors to determine the continued effectiveness of the Respiratory Protection Program and to ensure that respirators are properly selected, cleaned, issued, and maintained.

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Procedures for Obtaining Respiratory Protection Equipment

1. Employee or Supervisor should contact EH&S (412-624-9505) to request an evaluation of exposure and the need for respiratory protection. (See Appendix F)
2. EH&S personnel will determine if the use of a respirator is necessary by evaluating the work process. This may be evaluated by one or a combination of the following methods:
 - Consulting with the supervisor.
 - Interviewing the employee.
 - Observing the work operation.
 - Collecting air samples during the work process to assess airborne exposure.
 - Evaluating existing or alternative engineering or administrative controls.
3. Upon recommendations of EH&S for respiratory protection, the employee will be required to fill out a Medical History Questionnaire (Appendix B). This form can be obtained from the EHS Department. The completed form is sent to the MyHealth@Work for medical evaluation. If the reviewing physician deems necessary, you may be asked to undergo a medical exam, pulmonary function test and/or other tests.
4. Upon receiving medical clearance from the employee health physician, the employee must complete “Respiratory Protection Training” offered by the Department of Environmental Health and Safety. This training informs the user of the limitations, use, and care of the respirator.
5. EH&S will qualitatively or quantitatively fit test the employee for a respirator when all the above requirements have been met. The supervisor (with consultation from EH&S if necessary) will issue a respirator that provides the best comfort and fit upon completion of these requirements.
6. Respirator users must update medical information and fit testing qualifications annually or as needed.

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Appendix B
Medical History Questionnaires

**EMPLOYEE PARTICULATE FILTERING RESPIRATOR
MEDICAL EVALUATION - PART ONE**

This questionnaire is used in determining whether or not you have a medical condition that may affect your ability to safely wear a respirator. Fit testing is also required and is done separately. All medical information is confidential.

The following information must be provided by every employee who has been selected to use any type of respirator (PLEASE PRINT).

Date:		Name:		University 2P Number:	
Job Title:		Department:		Work Phone Number:	
Age (to nearest year)	Sex (circle one): Male Female	Height in feet/inches		Weight in pounds	
Has your employer told you how to contact the health care professional who will review this questionnaire? (circle one): Yes No					
Check the type of respirator you will use (you can check more than one category): _____ N,R, or P disposable respirator (filter mask) _____ Other type (if you use (or plan to use) half or full face, or self-contained breathing apparatus, contact MyHealth@Work for respirator questionnaire supplement)					
The following information must be provided to the health care professional before he/she makes a recommendation concerning your ability to use a respirator: 1. Duration and frequency of respirator use: _____ 2. Expected physical work effort (light, moderate, heavy – see below Part II.17): _____ 3. Additional protective clothing and equipment to be worn: _____					

Questions 1 through 9 below must be answered by every employee who has been selected to use any type of respirator (please circle "Y" or "N").

<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;">1. Do you currently smoke tobacco, or have you smoked tobacco in the last month?</td> <td style="width: 5%; text-align: center;">Y</td> <td style="width: 15%; text-align: center;">N</td> </tr> <tr> <td>2. Have you ever had any of the following conditions?</td> <td></td> <td></td> </tr> <tr> <td> a. Seizures (fits)</td> <td style="text-align: center;">Y</td> <td style="text-align: center;">N</td> </tr> <tr> <td> b. Diabetes (sugar disease)</td> <td style="text-align: center;">Y</td> <td style="text-align: center;">N</td> </tr> <tr> <td> c. Allergic reactions that interfere with your breathing</td> <td style="text-align: center;">Y</td> <td style="text-align: center;">N</td> </tr> <tr> <td> d. Claustrophobia (fear of closed-in places)</td> <td style="text-align: center;">Y</td> <td style="text-align: center;">N</td> </tr> <tr> <td> e. Trouble smelling odors</td> <td style="text-align: center;">Y</td> <td style="text-align: center;">N</td> </tr> <tr> <td>3. Have you ever had any of the following pulmonary or lung problems?</td> <td></td> <td></td> </tr> <tr> <td> a. Asbestosis</td> <td style="text-align: center;">Y</td> <td style="text-align: center;">N</td> </tr> <tr> <td> b. Asthma</td> <td style="text-align: center;">Y</td> <td style="text-align: center;">N</td> </tr> <tr> <td> c. Chronic Bronchitis</td> <td style="text-align: center;">Y</td> <td style="text-align: center;">N</td> </tr> <tr> <td> d. Emphysema</td> <td style="text-align: center;">Y</td> <td style="text-align: center;">N</td> </tr> <tr> <td> e. Pneumonia</td> <td style="text-align: center;">Y</td> <td style="text-align: center;">N</td> </tr> <tr> <td> f. Tuberculosis</td> <td style="text-align: center;">Y</td> <td style="text-align: center;">N</td> </tr> <tr> <td> g. Silicosis</td> <td style="text-align: center;">Y</td> <td style="text-align: center;">N</td> </tr> <tr> <td> h. Pneumothorax (collapsed lung)</td> <td style="text-align: center;">Y</td> <td style="text-align: center;">N</td> </tr> <tr> <td> i. Lung Cancer</td> <td style="text-align: center;">Y</td> <td style="text-align: center;">N</td> </tr> <tr> <td> j. Broken Ribs</td> <td style="text-align: center;">Y</td> <td style="text-align: center;">N</td> </tr> <tr> <td> k. Any chest injuries or surgeries</td> <td style="text-align: center;">Y</td> <td style="text-align: center;">N</td> </tr> <tr> <td> l. Any other lung problem in which you are aware</td> <td style="text-align: center;">Y</td> <td style="text-align: center;">N</td> </tr> <tr> <td>4. Do you currently have any of the following symptoms of pulmonary or lung illness?</td> <td></td> <td></td> </tr> <tr> <td> a. Shortness of breath</td> <td style="text-align: center;">Y</td> <td style="text-align: center;">N</td> </tr> <tr> <td> b. Shortness of breath when walking fast on level ground or walking up a slight hill or incline</td> <td style="text-align: center;">Y</td> <td style="text-align: center;">N</td> </tr> </table>	1. Do you currently smoke tobacco, or have you smoked tobacco in the last month?	Y	N	2. Have you ever had any of the following conditions?			a. Seizures (fits)	Y	N	b. Diabetes (sugar disease)	Y	N	c. Allergic reactions that interfere with your breathing	Y	N	d. Claustrophobia (fear of closed-in places)	Y	N	e. Trouble smelling odors	Y	N	3. Have you ever had any of the following pulmonary or lung problems?			a. Asbestosis	Y	N	b. Asthma	Y	N	c. Chronic Bronchitis	Y	N	d. Emphysema	Y	N	e. Pneumonia	Y	N	f. Tuberculosis	Y	N	g. Silicosis	Y	N	h. Pneumothorax (collapsed lung)	Y	N	i. Lung Cancer	Y	N	j. Broken Ribs	Y	N	k. Any chest injuries or surgeries	Y	N	l. 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Swelling in your legs/ feet (not caused by walking)</td> <td style="text-align: center;">Y</td> <td style="text-align: center;">N</td> </tr> <tr> <td> e. Heart arrhythmia (heart beating irregularly)</td> <td style="text-align: center;">Y</td> <td style="text-align: center;">N</td> </tr> <tr> <td> f. High blood pressure</td> <td style="text-align: center;">Y</td> <td style="text-align: center;">N</td> </tr> <tr> <td> g. Any other heart problem that you have been told about</td> <td style="text-align: center;">Y</td> <td style="text-align: center;">N</td> </tr> <tr> <td>6. Have you ever had any of the following cardiovascular or heart problems?</td> <td></td> <td></td> </tr> <tr> <td> a. Frequent pain or tightness in your chest</td> <td style="text-align: center;">Y</td> <td style="text-align: center;">N</td> </tr> <tr> <td> b. Pain or tightness in your chest during physical activity</td> <td style="text-align: center;">Y</td> <td style="text-align: center;">N</td> </tr> <tr> <td> c. Pain or tightness in your chest that interferes with your job</td> <td style="text-align: center;">Y</td> <td style="text-align: center;">N</td> </tr> <tr> <td> d. In the past 2 years, have you noticed your heart skipping or missing a beat</td> <td style="text-align: center;">Y</td> <td style="text-align: center;">N</td> </tr> <tr> <td> e. Heartburn or indigestion that is not related to eating</td> <td style="text-align: center;">Y</td> <td style="text-align: center;">N</td> </tr> <tr> <td> f. Any other symptoms that you think might be related to heart or circulation problems</td> <td style="text-align: center;">Y</td> <td style="text-align: center;">N</td> </tr> <tr> <td>7. Do you currently take medication for any of the following problems?</td> <td></td> <td></td> </tr> <tr> <td> a. Breathing or lung problems</td> <td style="text-align: center;">Y</td> <td style="text-align: center;">N</td> </tr> <tr> <td> b. Heart trouble</td> <td style="text-align: center;">Y</td> <td style="text-align: center;">N</td> </tr> <tr> <td> c. Blood Pressure</td> <td style="text-align: center;">Y</td> <td style="text-align: center;">N</td> </tr> <tr> <td> d. Seizures (fits)</td> <td style="text-align: center;">Y</td> <td style="text-align: center;">N</td> </tr> </table>	5. Have you ever had any of the following cardiovascular or heart problems?			a. Heart Attack	Y	N	b. Stroke	Y	N	c. Heart Failure	Y	N	d. Swelling in your legs/ feet (not caused by walking)	Y	N	e. Heart arrhythmia (heart beating irregularly)	Y	N	f. High blood pressure	Y	N	g. Any other heart problem that you have been told about	Y	N	6. Have you ever had any of the following cardiovascular or heart problems?			a. Frequent pain or tightness in your chest	Y	N	b. Pain or tightness in your chest during physical activity	Y	N	c. Pain or tightness in your chest that interferes with your job	Y	N	d. 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4. Do you currently have any of the following symptoms of pulmonary or lung illness?																																																																																																																																		
a. Shortness of breath	Y	N																																																																																																																																
b. Shortness of breath when walking fast on level ground or walking up a slight hill or incline	Y	N																																																																																																																																
5. Have you ever had any of the following cardiovascular or heart problems?																																																																																																																																		
a. Heart Attack	Y	N																																																																																																																																
b. Stroke	Y	N																																																																																																																																
c. Heart Failure	Y	N																																																																																																																																
d. Swelling in your legs/ feet (not caused by walking)	Y	N																																																																																																																																
e. Heart arrhythmia (heart beating irregularly)	Y	N																																																																																																																																
f. High blood pressure	Y	N																																																																																																																																
g. Any other heart problem that you have been told about	Y	N																																																																																																																																
6. Have you ever had any of the following cardiovascular or heart problems?																																																																																																																																		
a. Frequent pain or tightness in your chest	Y	N																																																																																																																																
b. Pain or tightness in your chest during physical activity	Y	N																																																																																																																																
c. Pain or tightness in your chest that interferes with your job	Y	N																																																																																																																																
d. In the past 2 years, have you noticed your heart skipping or missing a beat	Y	N																																																																																																																																
e. Heartburn or indigestion that is not related to eating	Y	N																																																																																																																																
f. Any other symptoms that you think might be related to heart or circulation problems	Y	N																																																																																																																																
7. Do you currently take medication for any of the following problems?																																																																																																																																		
a. Breathing or lung problems	Y	N																																																																																																																																
b. Heart trouble	Y	N																																																																																																																																
c. Blood Pressure	Y	N																																																																																																																																
d. Seizures (fits)	Y	N																																																																																																																																

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c. Shortness of breath when walking with other people at an ordinary pace on level ground d. Have to stop for breath when walking at your own pace on level ground e. Shortness of breath when washing or dressing yourself f. Shortness of breath that interferes with your job g. Coughing that produces phlegm (thick sputum) h. Coughing that wakes you early in the morning i. Coughing that occurs mostly when you are lying down j. Coughing up blood in the last month k. Wheezing l. Wheezing that interferes with your job m. Chest pain when you breath deeply n. Any other symptoms that you think may be related to lung problems	Y	N	8. If you've used a respirator, have you ever had any of the following problems? a. Eye Irritation b. Skin Allergies or Rashes c. Anxiety d. General Weakness or Fatigue e. Any other problem that interferes with your use of a respirator	Y	N
	Y	N		Y	N
	Y	N		Y	N
	Y	N	9. Would you like to talk to the health care professional who will review this questionnaire about your answers on this questionnaire?	Y	N
	Y	N		Y	N
	Y	N		Y	N
			Employee Signature	Date	

<input type="checkbox"/> Approved <input type="checkbox"/> Denied <input type="checkbox"/> Approved w/restrictions <input type="checkbox"/> More information needed			
Remarks:			
Physician/Nurse Signature			Date

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10. List any second jobs or side businesses you have:				
11. List your previous occupations:				
12. List your current and previous hobbies that may have led/lead to a chemical exposure:				
13. Have you been in the military services?			Y	N
If "Yes" were you exposed to biological or chemical agents (either in training or combat)?			Y	N
14. Have you ever worked on a HAZMAT team?			Y	N
15. Other than medications for breathing and lung problems, heart trouble, blood pressure, and seizures mentioned earlier in the Particulate Respirator Medical Evaluation questionnaire, are you taking any other medications for any reason (including over-the-counter medications)?			Y	N
If "Yes" name the medications (if you know them): _____				
16. How often are you expected to use the respirator(s) (circle Y or N for all answers that apply to you)?				
a. Escape only (no rescue)			Y	N
b. Emergency rescue only			Y	N
c. Less than 5 hours per week			Y	N
d. Less than 2 hours per day			Y	N
e. 2-4 hours per day			Y	N
f. Over 4 hours per day			Y	N
17. During the period you are using the respirator(s), is your work effort:				
a. LIGHT (less than 200 kcal per hour)			Y	N
If "Yes" how long does this period last during the average shift: _____ hours _____ minutes				
Examples of a light work effort are <u>sitting</u> while writing, typing, drafting, or performing light assembly work; or <u>standing</u> while operating a drill press (1-3 lb) or controlling machines.				
b. MODERATE (200 to 350 kcal per hour)			Y	N
If "Yes" how long does this period last during the average shift: _____ hours _____ minutes				
Examples of moderate work effort are <u>sitting</u> while nailing or filing; <u>driving</u> a truck or bus in urban traffic; <u>standing</u> while drilling, nailing, Performing assembly work, or transferring a moderate load (about 35 lb) at trunk level; <u>walking</u> on a level surface about 2 mph or down a 5-degree grade about 3 mph; or <u>pushing</u> a wheelbarrow with a heavy load (about 100 lb) on a level surface.				
c. HEAVY (above 350 kcal per hour)			Y	N
If "Yes" how long does this period last during the average shift: _____ hours _____ minutes				
Examples of heavy work are <u>lifting</u> a heavy load (about 50 lb) from the floor to your waist or shoulder; working on a loading dock; <u>shoveling</u> ; <u>standing</u> while bricklaying or chipping castings; <u>walking</u> up an 8-degree grade about 2mph; climbing stairs with a heavy load (about 50 lb).				
18. Will you be wearing protective clothing and/or equipment (other than the respirator) when you're using your respirator?			Y	N
If "Yes" describe this protective clothing and/or equipment: _____				
19. Will you be working under hot conditions (temperature exceeding 77 degrees F)?			Y	N
20. Will you be working under humid conditions?			Y	N
21. Describe the work you'll be doing while you're using your respirator:				

22. Describe any special or hazardous conditions you might encounter when you're using your respirator(s). (Example: confined space, life-threatening gases):				

23. Provide the following information, if you know it, for each toxic substance that you'll be exposed to when you're using your respirator(s):				
a. Name of the first toxic substance: _____				
Estimated maximum exposure level per shift:: _____				
Duration of exposure per shift: _____				
b. Name of the second toxic substance: _____				
Estimated maximum exposure level per shift:: _____				
Duration of exposure per shift: _____				
c. Name of the third toxic substance: _____				
Estimated maximum exposure level per shift:: _____				
Duration of exposure per shift: _____				

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d. The name of any other toxic substances that you'll be exposed to while using your respirator: _____ _____
24. Describe any special responsibilities you'll have while using your respirator(s) that may affect the safety and well-being of others. (Example: rescue, security): _____ _____ _____

Employee Signature	Date

μ Approved	μ Denied	μ Approved w/restrictions	μ More information needed
Remarks:			
Physician/Nurse Signature			Date

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Appendix D

Employee Voluntary Use of Respirators

Appendix D to Sec. 1910.134 (Mandatory)

Information for employees using respirators when not required under the standard

Respirators are an effective method of protection against designated hazards when properly selected and worn. 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 you voluntarily elect to wear respiratory protection, you must do the following:

1. Read and follow all instructions provided by the manufacturer on use, maintenance, cleaning limitations regarding the respirator.
2. Choose respirators certified by NIOSH, the National Institute for Occupational Safety and Health of the U.S. Department of Health and Human Services.
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. Keep track of your respirator so that you do not mistakenly use someone else's respirator.
5. Complete and submit the following Voluntary User form to EH&S.
6. According to an OSHA interpretation, the voluntary user provision in Appendix D apply only to filtering facepiece respirators (N-95 or equivalent dust masks) and not for half or full face respirators where most other provisions of the OSHA standard apply.
7. All voluntary respirator users at the University of Pittsburgh will be asked to complete a medical evaluation questionnaire and submit to an initial qualitative fit test and training as deemed necessary to assure safe and effective respirator use.

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**UNIVERSITY OF PITTSBURGH
VOLUNTARY RESPIRATOR USER REGISTRATION**

EMPLOYEE NAME (PRINT) _____

Pitt ID # 2P _____

JOB FUNCTION/TITLE _____

DEPARTMENT _____

BUILDING _____ WORK PHONE NO. _____

E-MAIL ADDRESS _____

RESPIRATOR USED: MANUFACTURER _____

TYPE _____

SIZE _____

FREQUENCY OF USE _____

AIR CONTAMINANT(S) EXPOSED TO OR REASON FOR USE:

HAVE YOU BEEN TRAINED OR FIT-TESTED FOR THIS RESPIRATOR? YES__NO__

DID YOU COMPLETE AND SUBMIT YOUR MEDICAL EVALUATION FORM?

YES__ NO__

Completed forms or questions should be sent by fax, e-mail or campus mail to:

Department of Environmental Health and Safety
Public Safety Building, Floor 4
3412 Forbes Avenue
Pittsburgh, PA. 15260
Phone: 412-624-9505
Fax: 412-624-8524
E-Mail: safety@ehs.pitt.edu

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Appendix E

UNIVERSITY OF PITTSBURGH ENVIRONMENTAL HEALTH AND SAFETY DEPARTMENT RESPIRATOR FIT TEST RECORD

EMPLOYEE NAME (PRINT) _____

EMPLOYEE (SIGNATURE) _____

Pitt ID Number 2P _____

JOB FUNCTION/TITLE _____

WORK DEPARTMENT _____

BUILDING _____ WORK PHONE NO. _____

DATE OF FIT TEST _____ DATE OF TRAINING _____

RESPIRATOR: MANUFACTURE _____
TYPE _____
SIZE _____
FREQUENCY OF USE _____

UNUSUAL CONDITIONS:

FACIAL HAIR _____
SCARS/MOLES _____
WRINKLES _____
GLASSES _____
MUSTACHE _____
BEARD GROWTH _____
OTHERS _____

SACCHARIN SENSITIVITY: PASS _____ FAIL _____ DID NOT RUN _____

IA / BIT SENSITIVITY TEST: PASS _____ FAIL _____ DID NOT RUN _____

SMOKE SENSITIVITY TEST: PASS _____ FAIL _____ DID NOT RUN _____

QUALITATAIVE TEST:	(PASS)	(FAILED)	(DID NOT RUN)
(PP) = POSITIVE PRESSURE	_____	_____	_____
(NP) = NEGATIVE PRESSURE	_____	_____	_____
(SA) = SACCHARIN	_____	_____	_____
(BIT)= BITREX	_____	_____	_____
(IA) = ISOAMYL ACETATE	_____	_____	_____
(IS) = IRRITANT SMOKE	_____	_____	_____

QUANITATIVE TEST PASS _____ FAIL _____ DID NOT RUN _____

Equivalent Fit Factor _____ Average % Leakage _____

PERFORMED BY (SIGNATURE) _____ PAPER Training