Respirator Protection Program

1.0 Purpose

Lower Columbia College is committed to ensuring the safety of all employees and students. In order to prevent occupational diseases caused by breathing air contaminated with harmful dusts, fogs, fumes, mists, gases, smokes, sprays, or vapors, the primary objective of this program shall be to prevent atmospheric contamination. This shall be accomplished as far as feasible by accepted engineering control measures (for example, enclosure or confinement of the operation, general and local ventilation, and substitution of less toxic materials). When effective engineering controls are not feasible, or while they are being implemented, appropriate respirators shall be used pursuant to 296-842 WAC.

2.0 Scope and Application

Respirators are required during work activities whenever respiratory hazards (including oxygen-deficient conditions) are present. For example, use respirators at any of the following times:

(a) While exposure controls are being evaluated or put in place;
(b) When it is not feasible to use exposure controls to remove or reduce the airborne hazard to below the PEL.

When respiratory use is not voluntary, the required use sections of this chapter apply, if:

1. EH&S or your supervisor require respirator use.
2. A respiratory hazard, such as exposure to a substance over the permissible exposure limit (PEL) or hazardous exposure to an airborne biological hazard, is present (296-841 WAC).
3. When the exposure to an unknown concentration of an inhalation hazard is present, potentially over the PEL

Some requirements in this program do not apply if only filtering-face-piece respirators are used voluntarily. Some filtering-face-piece respirators are equipped with a sorbent layer for absorbing “nuisance” organic vapors. These can be used for voluntary use, but are not NIOSH certified for protection against hazardous concentrations of organic vapors.

3.0 Program Administrator

LCC’s designated respiratory protection program administrator is the Director of EH&S. The administrator has overall responsibility for the respiratory protection program. This person has

sufficient training or experience to oversee program development, coordinate implementation, and conduct required evaluations of program effectiveness as outlined in WAC 296-842-12005.

4.0 Respirator Use- Voluntary

Voluntary respirator use must not interfere with an employee's ability to work safely (i.e. the respirator should not restrict necessary vision, or radio communication). Voluntary respirator use should also not create any health hazards (i.e. skin irritation, dermatitis, communicable disease from sharing respirators, etc.)

4.1 Advisory Information

All voluntary respirator users must be provided with the following advisory information at no cost to them.

- Respirators protect against airborne hazards when properly selected and used. Respirator usage that is required by DOSH or your employer is not voluntary use. With required use, your employer will need to provide further training and meet additional requirements outlined in this program.
- DOSH recommends voluntary use of respirators when exposure to substances is below DOSH permissible exposure limits (PELs) because respirators can provide you an additional level of comfort and protection.
- If you choose to voluntarily use a respirator (whether it is provided by you or your employer) be aware that respirators can create hazards for you, the user. You can avoid these hazards if you know how to use your respirator properly AND how to keep it clean. Take these steps:
    a. Read and follow all instructions provided by the manufacturer about use, maintenance (cleaning and care), and warnings regarding the respirator's limitations.
    b. Choose respirators that have been certified for use to protect against the substance of concern. The National Institute for Occupational Safety and Health (NIOSH) certifies respirators. If a respirator is not certified by NIOSH, you have no guarantee that it meets minimum design and performance standards for workplace use. A NIOSH approval label will appear on or in the respirator packaging. It will tell you what protection the respirator provides.
    c. Keep track of your respirator so you do not mistakenly use someone else's.
    d. DO NOT wear your respirator into: Required use situations when you are only allowed voluntary use. Atmospheres containing hazards that your respirator is not designed to protect against. For example, a respirator designed to filter dust particles will not protect you against solvent vapor, smoke or oxygen deficiency.

5.0 Respirator Use- Required

5.1 Required Users

LCC has evaluated the use of chemicals on campus and found that employees in the following locations or positions, or doing the following duties, tasks or activities must use respirators.

Employee Position	Chemical/ Product Used	NOISH Approved Respirator Assigned	Frequency of Use

5.2 Respirator Selection

How do you decide which type of respirator to select? First, it must be the correct type for the air contaminant. Second, it must fit properly. Third, it must provide adequate protection for the amount of chemical in the air. The more toxic or more concentrated the chemical is in the air, the higher the level of protection the respirator must provide.

Different respirators provide different protection. Depending on the amount of chemical in the air, you may need to use a respirator that provides more protection. Respirators are rated by their “assigned protection factor” (APF) which is a number between 10 and 10,000. The higher the number, the greater the protection. A respirator with a protection factor of 10 will provide adequate protection to levels of the chemical in the air 10 times the safe limit of that chemical. See Table 5 below.

Table 5 Assigned Protection Factors (APF) for Respirator Types	
If the respirator is a(n)	**Then the APF is**
Air-purifying respirator with a: • Quarter-mask • Half-facepiece. This category includes filtering facepiece and elastomeric facepiece • Full-facepiece	 5 10 50
Powered air-purifying respirator (PAPR) with a: • Loose-fitting facepiece • Half-facepiece • Full-facepiece • Hood or helmet **Note:** PAPRs with helmets/hoods may receive an APF of 1000 only when you have evidence that testing of these respirators demonstrates performance at a level of protection of 1,000 or greater. Such evidence must be provided by the respirator manufacturer. This level of performance can best be demonstrated by performing a workplace protection factor (WPF) or simulated workplace protection factor (SWPF) study or equivalent testing.	 25 50 1000 25/1000 (see note)
Air-line respirator with a: • Half-facepiece and designed to operate in demand mode • Loose-fitting facepiece and designed to operate in continuous flow mode • Half-facepiece and designed to operate in continuous-flow mode • Half-facepiece and designed to operate in pressure-demand or other positive-pressure mode • Full-facepiece and designed to operate in demand mode. • Full-facepiece and designed to operate in continuous-flow mode • Full-facepiece and designed to operate in pressure-demand or other positive-pressure mode. • Helmet or hood and designed to operate in continuous-flow mode **Note:** Air-line respirators with helmets/hoods designed to operate in continuous-flow mode may receive an APF of 1000 when you have evidence that testing of these respirators demonstrates performance at a level of protection of 1,000 or greater. Such evidence must be provided by the respirator manufacturer. This level of performance can best be demonstrated by performing a workplace protection factor (WPF) or simulated workplace protection factor (SWPF) study or equivalent testing.	 10 25 50 50 50 1000 1000 25/1000 (see note)
Self-contained breathing apparatus (SCBA) with a tight fitting: • Half-facepiece and designed to operate in demand mode • Full facepiece and designed to operate in demand mode • Full-facepiece and designed to operate in pressure-demand mode or other positive pressure mode (e.g. open/closed circuit) • Helmet or hood and designed to operate in demand mode • Helmet or hood and designed to operate in pressure-demand or other positive-pressure mode (e.g., open/closed circuit).	 10 50 10,000 50 10,000
Combination respirators: • When using a combination respirator, such as an air-line respirator with an air-purifying filter, you must make sure the APF is appropriate to the mode of operation in which the respirator is used.	
Escape respirators: • APFs in this table do not apply to respirators used solely for escape. To select escape respirators, go to Step 8 of this section.	

Types and brands of respirators vary widely ranging from simple dust masks to supplied air respirators like the kind firemen wear. Below you will find a description of the main types of respirators available for purchase. 5.2a Dust Masks (filtering face-pieces)

These simple, two-strap disposable dust masks are designed only for dusts. They are not as protective as other respirators, but do an adequate job in many cases, unless the dust is really toxic or copious. Don't confuse these two-strap masks with the less protective one-strap dust mask designed only for pollen or non-toxic dust.





5.2b Half Face- Air Purifying Respirator

These respirators are sometimes called "half-face" or "half-mask" respirators since they cover just the nose and mouth. They have removable cartridges that filter out either dust, chemicals or both. Selecting the correct cartridges is *essential* since they are designed for particular types of chemicals or dust. A reputable respirator vendor can assist you in selecting the correct cartridges. These cartridges are typically removable and sometimes interchangeable. Cartridges are available for solvents, ammonia, chlorine, acids and other chemicals. The cartridges must be changed out or replaced periodically, especially for chemicals, since they can absorb only so much contaminant before breakthrough occurs. A few cartridges are equipped with end-of-service indicators that show when a cartridge should be replaced. Most cartridges don't have this indicator and you must develop a change-out schedule to prevent breakthrough. The change-out schedule is based on the chemical concentration, physical work effort, temperature and humidity. Many respirator manufacturers have cartridge change schedule calculators available on the Internet. See Table 6 for requirements of air purifying respirators.



5.2c Full Face- Air Purifying Respirator

In some situations, you may need or want to use full-face respirator. This type of respirator is used when the air contaminant irritates the eyes. They also provide somewhat higher protection to the lungs since they tend to fit tighter and are less prone to leaking. These respirators also have replaceable cartridges that must be changed on a regular basis as described above for half-face respirators. See Table 6 for requirements of air purifying respirators.



5.2d Powered- Air Purifying Respirator (PAPR)

Powered Air Purifying Respirators have a battery pack that draws air through replaceable cartridges and blows into a full face-piece, helmet or hood. These respirators are often more comfortable in hot weather and some can provide more protection, depending on the type. The cartridges must be changed regularly as describe for half-face respirators above. See Table 6 for requirements of air purifying respirators.



5.2e Supplied Air Respirators and Self-Contained Breathing Apparatus (SCBA)

In a few situations, you may need to provide a supplied air respirator to your employees. These situations include large chemical spills or leaks, entering a confined space where there is lack of oxygen or high levels of air contaminants, or working around extremely toxic chemicals.

“Supplied air,” means that clean air is provided by means of an air hose from a compressor or a pressurized air tank.

Supplied air respirators are required when a respiratory hazard is considered “immediately dangerous to life or health” (also called “IDLH”). Respiratory hazards are classified as IDLH as follows:

- There is a lack of oxygen (less than 19.5% oxygen)
- There is too much oxygen (more than 23.5% - a fire hazard)
- You know there are toxic chemicals in the air, but you don’t know how much
- The amount of chemical in the air is known or expected to be above the IDLH level for that chemical. See the NIOSH Pocket Guide to Chemical Hazards for chemical IDLH levels.*

*Levels of chemicals above IDLH can occur in confined spaces, or enclosed spaces where there is little or no ventilation.



Airline Respirator



Tank-type Supplied Air Respirator (SCBA)

5.2f Emergency Escape Respirators

Emergency escape respirators, as the name implies, can only be used for one thing – to escape or exit from a room or building in an emergency, usually a large chemical release, leak or spill, or when a supplied air respirator fails or runs out of air. An escape respirator is typically a small bottle or tank of air connected to a face-piece that supplies 5-10 minutes of air. Some supplied air respirators will have an auxiliary bottle of air for escape that connects to the existing face-piece.



Use **Table 6** below to select air-purifying respirators for particle, vapor, or gas contaminants.

Table 6
Requirements for Selecting Air-purifying Respirators

If the contaminant is a:	Then
Gas or vapor 	Provide a respirator with canisters or cartridges equipped with a NIOSH-certified, end-of-service-life indicator (ESLI) (*note: there just a few of these)* **or** If a canister or cartridge with an ESLI is **not** available, develop a cartridge change schedule to make sure the canisters or cartridges are replaced before they are no longer effective (*note: most cartridge respirators fit in this category)* **or** Select an air-supplying respirator
Particle, such as a dust, spray, mist, fog, fume, or aerosol 	Select respirators with filters certified to be at least 95% efficient by NIOSH. For example, N95s, R99s, P100s, or High Efficiency Particulate Air filters (HEPA) **Or** You may select respirators NIOSH certified as “dust and mist,” “dust, fume, or mist,” or “pesticides.” You can only use these respirators if particles primarily have a mass median aerodynamic diameter of at least 2 micrometers *Note: These latter respirators are no longer sold for occupational use, but some employers may still be using them.*

6.0 Medical Evaluation Provisions

Every LCC employee who must wear a respirator will be provided with a medical evaluation *before* they are allowed to use the respirator. LCC's first step is to give a medical questionnaire to those employees (see Appendix D). Employees are required to fill out the questionnaire in private and send or give them to (Lower Columbia Occupational Health). Completed questionnaires are confidential and will be sent directly to the medical provider without review by management. Management will also complete the Employer Information form to send to the medical provider (Appendix A).

If the medical questionnaire indicates to our medical provider that a further medical exam is required, this will be provided at no cost to our employees. We will get a recommendation from this medical provider on whether or not the employee is medically able to wear a respirator.

Additional medical evaluations will be done in the following situations:

- The medical provider recommends it,
- The respirator program administrator decides it is needed,
- An employee shows signs of breathing difficulty,
- Changes in work conditions occur that increase employee physical stress (such as high temperatures or greater physical exertion).

7.0 Fit Test Provisions and Procedures

All employees who wear tight-fitting respirators will be fit-tested before using their respirator or given a new one. Fit-testing will be repeated annually. Fit-testing will also be done when:

- a different respirator face-piece is chosen,
- when there is a physical change in an employee's face that would affect fit, or
- when an employee or medical provider notifies LCC that the fit is unacceptable.

No beards are allowed on wearers of tight-fitting respirators. Fit-testing is not required for loose-fitting, positive pressure (supplied air helmet or hood style) respirators. Fit testing is conducted by Lower Columbia Occupational Health using a quantitative fit-testing instrument.

Documentation of employee fit testing is kept by the office of EH&S.

7.1 Seal Check Procedures

Our respirators will be checked for proper sealing by the user whenever the respirator is first put on, using the seal check procedures provided in Appendix B.

8.0 Training Provisions

Training is done by the office of EH&S before employees wear their respirators and annually thereafter as long as they wear respirators. Our supervisors or crew bosses who wear respirators or supervise employees who do, will also be trained on the same schedule.

Additional training will also be done when an employee uses a different type of respirator or workplace conditions affecting respiratory hazards or respirator use have changed.

Training will cover the following topics:

- Why the respirator is necessary,
- The respirator's capabilities and limitations,
- How improper fit, use or maintenance can make the respirator ineffective,
- How to properly inspect, put on, seal check, use, and remove the respirator,
- How to clean, repair and store the respirator or get it done by someone else,
- How to use a respirator in an emergency situation, or when it fails
- Medical symptoms that may limit or prevent respirator use,
- Our obligations under the Respirators Rule.

9.0 Respirator Use Procedures

Employees will not be allowed to wear respirators with tight-fitting face-pieces if they have facial hair (e.g., stubble, bangs) absence of normally worn dentures, facial deformities (e.g., scars, deep skin creases, prominent cheekbones), or other facial features that interfere with the face-piece seal or valve function. Jewelry or headgear that projects under the face-piece seal is also not allowed.

If corrective glasses or other personal protective equipment is worn, be sure it will not interfere with the seal of the face-piece to the face.
Note: Full face-piece respirators can be provided with corrective glasses since corrective lenses can be mounted inside a full face-piece respirator. Contact lenses can also be used with full face-piece respirators if they do not cause any problems for the employee.

A seal check will be performed every time a tight-fitting respirator is put on.

The program administrator will make sure that the NIOSH labels and color-coding on respirator filters and cartridges remain readable and intact during use.

Employees will leave the area where respirators are required for any of the following reasons:

- to replace filters or cartridges,

- when they smell or taste a chemical inside the respirator,
- when they notice a change in breathing resistance
- to adjust their respirator,
- to wash their faces or respirator,
- if they become ill,
- if they experience dizziness, nausea, weakness, breathing difficulty, coughing, sneezing vomiting, headache, fever or chills.

Where any area or confined space is designated as IDLH, LCC employees may not enter. In this situation, an outside contractor such as Cowlitz Clean Sweep, or Cowlitz 2 Fire Rescue will be contacted for any rescue, or remediation activity in the area.

10.0 Respirator Storage, Maintenance, Cleaning and Repair

10.1 Storage

Our non-disposable respirators will be stored in the following locations:

Department	User	Location
Campus Services		
Chemistry		
EH&S		
Automotive/Diesel		

10.2 Maintenance

Respirators will be inspected for damage, deterioration or improper functioning and replaced as needed. Supplied air respirators will be checked for proper functioning of regulator and warning devices and amount of air in tanks where used.

All respirators will be inspected before and after every use and during cleaning. In addition, emergency respirators and self-contained tank-type supplied air respirators in storage will be inspected monthly.

Air purifying respirator cartridges must be changed out with new cartridges once they have reached their end-of-service life. End of service life is calculated using 3M Service Life Calculator, or by monitoring the end-of service life indicator on the cartridge- when available.

10.3 Cleaning

Respirators will be cleaned and sanitized every time they are used and when they are place back into storage, or whenever they are visibly dirty. Paper dust masks are not cleaned, because they are disposed daily. Respirators will be cleaned according manufacturer's instructions.

10.4 Repair

Respirators will not be repaired. When damage is noticed on a respirator, it must be replaced.

11.0 Program Effectiveness Evaluation

LCC evaluate our respiratory program for effectiveness by doing the following steps:

1. Checking results of fit-test and health provider evaluations.
2. Talking with employees who wear respirators about their respirators – how they fit, do they feel they are adequately protecting them, do they notice any difficulties in breathing while wearing them, do they notice any odors while wearing them, etc.
3. Periodically checking employee job duties for changes in chemical exposure.
4. Periodically checking maintenance and storage of respirators.
5. Periodically checking how employees use their respirators.

12.0 Record Keeping

The following records will be kept in the office of EH&S:

- A copy of this completed respirator program
- Employees' latest fit-testing results
- Employee training records (see Appendix C)
- Written recommendations from Lower Columbia Occupational Health

Employees will have access to these records.

Appendix A: Employer Provided Information for Medical Evaluations

Employer-Provided Information for Medical Evaluations

This form may be used by the employer to give to your medical provider, information on respirator use by your employees, but it is not a required form. You can also consult directly with your medical provider and discuss the information below.
You must also give the medical provider a copy of your written respiratory program and copy of the Respirators Rule

Specific Respirator Use Information

Employee Name: _____

Company name: _____

Employee job title: _____

Company Address: _____

Company contact person and phone #:_____

1. Will the employee be wearing protective clothing and/or equipment (other than the respirator) when using the respirator?
   Yes/No _____ If "Yes," describe protective clothing and/or equipment:
   _____
   _____
   _____
   _____

2. Will employee be working under hot conditions (temperature exceeding 77°F)?
   Yes/No _____ If "Yes", describe nature of work and duration:

_____
_____
_____
_____

3. Will employee be working under humid conditions? Yes / No_____

4. Describe any special or hazardous conditions the employee could encounter when using the respirator (for example, confined spaces, life-threatening gases).

_____
_____
_____

Specific Respirator Use Information, Continued

Check Box	Respirator Type	Face / Head Cover Type (half or full face, helmet, or hood)	Frequency of Use (hours per day, week, or month)	Work Effort Light, Moderate, Heavy (see descriptions below)	Respirator Wt.
	Disposable face-piece particulate filter (N, R or P series)	1/2 face-piece			
	Mask with replaceable filter or cartridge				
	Mask with canister				
	Powered air-purifying respirator (PAPR)				
	Air line, continuous flow				
	Air line, negative pressure demand				
	Air line, positive pressure demand				
	SCBA, negative pressure demand	Full face-piece			
	SCBA, positive pressure demand	Full face-piece			

Work Effort Descriptions

Examples of a **light work effort** are sitting while writing, typing, drafting, or performing light assembly work; or standing while operating a drill press (1-3 lbs.) or controlling machines.

Examples of **moderate work effort** are sitting while nailing or filing; driving a truck or bus in urban traffic; standing while drilling, nailing, performing assembly work, or transferring a moderate load (about 35 lbs.) at trunk level; walking on a level surface about 2 mph or down a 5-degree grade about 3 mph; or pushing a wheelbarrow with a heavy load (about 100 lbs.) on a level surface.

Examples of **heavy work effort** are lifting a heavy load (about 50 lbs.) from the floor to your waist or shoulder; working on a loading dock; shoveling; standing; standing while bricklaying or chipping castings; walking up an 8-degree grade about 2 mph; climbing stairs with a heavy load (about 50 lb.).

Appendix B: Seal Check Procedures

Table 21

User Seal Check Procedure

Important Information for Employees:

- You need to conduct a seal check each time you put your respirator on before you enter the respirator use area. The purpose of a seal check is to make sure your respirator (which has been previously fit tested by your employer) is properly positioned on your face to prevent leakage during use and to detect functional problems.
- The procedure below has 2 parts; a positive pressure check and a negative pressure check. You must complete both parts each time. It should only take a few seconds to perform, once you learn it.
  - If you can't pass both parts, your respirator is not functioning properly, see your supervisor for further instruction.

Positive Pressure Check:

1. Remove exhalation valve cover, if removable.
2. Cover the exhalation valve completely with the palm of your hand while exhaling gently to inflate the facepiece slightly.
3. The respirator facepiece should remain inflated (indicating a build-up of positive pressure and no outward leakage).
   - If you detect no leakage, replace the exhalation valve cover (if removed), and proceed to conduct the negative pressure check .
   - If you detect evidence of leakage, reposition the respirator (after removing and inspecting it), and try the positive pressure check again.

Negative Pressure Check:

4. Completely cover the inhalation opening(s) on the cartridges or canister with the palm(s) of your hands while inhaling gently to collapse the facepiece slightly.
   - If you can't use the palm(s) of your hands to effectively cover the inhalation openings on cartridges or canisters, you may use:
     - Filter seal(s) (if available)

       or

     - Thin rubber gloves
5. Once the facepiece is collapsed, hold your breath for 10 seconds while keeping the inhalation openings covered.
6. The facepiece should remain slightly collapsed (indicating negative pressure and no inward leakage).
   - If you detect no evidence of leakage, the tightness of the facepiece is considered adequate, the procedure is completed, and you may now use the respirator.
   - If you detect leakage, reposition the respirator (after removing and inspecting it) and repeat both the positive and negative fit checks.

Appendix C: Training Record Form

_____

Employee Name (printed)

I certify that I have been trained in the use of the following respirator(s):

This training included the inspection procedures, fitting, maintenance and limitations of the above respirator(s). I understand how the respirator operates and provides protection. I further certify that I have heard the explanation of the respirator(s) as described above and I understand the instructions relevant to use, cleaning, disinfecting and the limitations of the respirator(s).

_____

Employee Signature

_____

Instructor Signature

_____

Date

Appendix D: Medical Evaluation Form

DOSH Medical Evaluation Questionnaire

Employer instructions:

• You may use on-line questionnaires if the requirements in WAC 296-842-14005 are met.

• You must tell your employee how to deliver or send the completed questionnaire to the health care provider you have selected.

• You must **NOT** review employees' questionnaires.

Health care provider's instructions:

• Review the information in this questionnaire and any additional information provided to you by the employer.

• You may add questions to this questionnaire at your discretion; HOWEVER, questions in Parts 1-3 may not be deleted or substantially altered.

• Follow-up evaluation is required for any positive response to questions 1-8 in Part 2, or questions 1-6 in Part 3. This might include: Phone consultations to evaluate positive responses, medical tests, and diagnostic procedures.

• When your evaluation is complete, send a copy of your written recommendation to the employer **AND** employee.

Employee information and instructions:

• Your employer must allow you to answer this questionnaire during normal working hours, or at a time and place that is convenient to you.

• Your employer or supervisor must not look at or review your answers at any time.

Part 1 - Employee Background Information
ALL employees must complete this part
Please print

1. Today's date:
2. Your name:
3. Your age (to nearest year):
4. Sex (circle one): Male / Female
5. Your height: ft. in.
6. Your weight: lbs.
7. Your job title:
8. A phone number where you can be reached by the health care professional who reviews this questionnaire (include Area Code):
9. The best time to call you at this number:
10. Has your employer told you how to contact the health care professional who will review this questionnaire?

    Yes / No

11. Check the type of respirator(s) you will be using:

☐ a. N, R, or P filtering-facepiece respirator (for example, a dust mask, **OR** an N95 filtering-facepiece respirator).

b. Check all that apply.

☐ Half mask ☐ Full facepiece mask ☐ Helmet hood ☐ Escape

☐ Non-powered cartridge or canister

☐ Powered air-purifying cartridge respirator (PAPR)

☐ Supplied-air or Air-line

Self-contained breathing apparatus (SCBA): ☐ Demand or ☐ Pressure demand

Other:

12. Have you previously worn a respirator? Yes / No

If "yes," describe what type(s):

Part 2 - General Health Information
ALL employees must complete this part
Please circle "Yes" or "No"

1. Do you *currently* smoke tobacco, or have you smoked tobacco in the last month? Yes / No

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

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 have been told about: Yes / No

4. Do you *currently* have any of the following symptoms of pulmonary or lung illness?
   a. Shortness of breath: Yes / No
   b. Shortness of breath when walking fast on level ground or walking up a slight hill or incline? Yes / No
   c. Shortness of breath when walking with other people at an ordinary pace on level ground: Yes / No

d. Have to stop for breath when walking at your own pace on level ground: Yes / No
e. Shortness of breath when washing or dressing yourself: Yes / No
f. Shortness of breath that interferes with your job: Yes / No
g. Coughing that produces phlegm (thick sputum): Yes / No
h. Coughing that wakes you early in the morning: Yes / No
i. Coughing that occurs mostly when you are lying down: Yes / No
j. Coughing up blood in the last month: Yes / No
k. Wheezing: Yes / No
l. Wheezing that interferes with your job: Yes / No
m. Chest pain when you breathe deeply: Yes / No
n. Any other symptoms that you think may be related to lung problems: Yes / No

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

6. Have you *ever had* any of the following cardiovascular or heart symptoms?
a. Frequent pain or tightness in your chest: Yes / No
b. Pain or tightness in your chest during physical activity: Yes / No
c. Pain or tightness in your chest that interferes with your job: Yes / No
d. In the past 2 years, have you noticed your heart skipping or missing a beat: Yes / No
e. Heartburn or indigestion that is not related to eating: Yes / No
f. Any other symptoms that you think may be related to heart or circulation problems: Yes / No

7. Do you *currently* take medication for any of the following problems? Yes / No
a. Breathing or lung problems: Yes / No
b. Heart trouble: Yes / No
c. Blood pressure: Yes / No
d. Seizures (fits): Yes / No

8. If you have used a respirator, have you *ever had* any of the following problems? (If you have never used a respirator, check the following space and go to question 9:)
a. Eye irritation: Yes / No
b. Skin allergies or rashes: Yes / No
c. Anxiety: Yes / No
d. General weakness or fatigue: Yes / No
e. Any other problem that interferes with your use of a respirator? Yes / No

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

Part 3 - Additional Questions for Users of Full-Facepiece Respirators or SCBAs
Please circle "Yes" or "No"

1. Have you *ever lost* vision in either eye (temporarily or permanently)? Yes / No

2. Do you *currently* have any of these vision problems?
a. Need to wear contact lenses: Yes / No
b. Need to wear glasses: Yes / No
c. Color blindness: Yes / No

d. Any other eye or vision problem: Yes / No

3. Have you *ever had* an injury to your ears, including a broken ear drum? Yes / No

4. Do you *currently* have any of these hearing problems?
   a. Difficulty hearing: Yes / No
   b. Need to wear a hearing aid: Yes / No
   c. Any other hearing or ear problem: Yes / No

5. Have you *ever had* a back injury? Yes / No

6. Do you *currently* have any of the following musculoskeletal problems?
   a. Weakness in any of your arms, hands, legs, or feet: Yes / No
   b. Back pain: Yes / No
   c. Difficulty fully moving your arms and legs: Yes / No
   d. Pain or stiffness when you lean forward or backward at the waist: Yes / No
   e. Difficulty fully moving your head up or down: Yes / No
   f. Difficulty fully moving your head side to side: Yes / No
   g. Difficulty bending at your knees: Yes / No
   h. Difficulty squatting to the ground: Yes / No
   i. Climbing a flight of stairs or a ladder carrying more than 25 lbs: Yes / No
   j. Any other muscle or skeletal problem that interferes with using a respirator: Yes / No

Part 4 - Discretionary Questions
Complete questions in this part ONLY IF your employer's health care provider says they are necessary

1. In your present job, are you working at high altitudes (over 5,000 feet) or in a place that has lower than normal amounts of oxygen? Yes / No

If "yes," do you have feelings of dizziness, shortness of breath, pounding in your chest, or other symptoms when you are working under these conditions: Yes / No

2. Have you ever been exposed (at work or home) to hazardous solvents, hazardous airborne chemicals (such as gases, fumes, or dust), **OR** have you come into skin contact with hazardous chemicals? Yes / No

If "yes," name the chemicals, if you know them:

3. Have you ever worked with any of the materials, or under any of the conditions, listed below:
   a. Asbestos? Yes / No
   b. Silica (for example, in sandblasting)? Yes / No
   c. Tungsten/cobalt (for example, grinding or welding this material)? Yes / No
   d. Beryllium? Yes / No
   e. Aluminum? Yes / No
   f. Coal (for example, mining)? Yes / No
   g. Iron? Yes / No
   h. Tin? Yes / No
   i. Dusty environments? Yes / No
   j. Any other hazardous exposures? Yes / No

If "yes," describe these exposures:

4. List any second jobs or side businesses you have:

5. List your previous occupations:

6. List your current and previous hobbies:

7. Have you been in the military services? Yes / No

If "yes," were you exposed to biological or chemical agents (either in training or combat)? Yes / No

8. Have you ever worked on a HAZMAT team? Yes / No

9. Other than medications for breathing and lung problems, heart trouble, blood pressure, and seizures mentioned earlier in this questionnaire, are you taking any other medications for any reason (including over-the-counter medications)? Yes / No

If "yes," name the medications if you know them:

10. Will you be using any of the following items with your respirator(s)?
    a. HEPA filters: Yes / No
    b. Canisters (for example, gas masks): Yes / No
    c. Cartridges: Yes / No

11. How often are you expected to use the respirator(s)?
    a. Escape-only (no rescue): Yes / No
    b. Emergency rescue only: Yes / No
    c. Less than 5 hours *per week*: Yes / No
    d. Less than 2 hours *per day*: Yes / No
    e. 2 to 4 hours per day: Yes / No
    f. Over 4 hours per day: Yes / No

12. During the period you are using the respirator(s), is your work effort:
    a. *Light* (less than 200 kcal per hour): Yes / No

If "yes," how long does this period last during the average shift: ___hrs. ___mins.

Examples of a light work effort are sitting while writing, typing, drafting, or performing light assembly work; or standing while operating a drill press (1-3 lbs.) or controlling machines.

    b. *Moderate* (200 to 350 kcal per hour): Yes / No

If "yes," how long does this period last during the average shift: ___hrs. ___mins.

Examples of moderate work effort are sitting while nailing or filing; driving a truck or bus in urban traffic; standing while drilling, nailing, performing assembly work, or transferring a moderate load (about 35 lbs.) at trunk level; walking on a level surface about 2 mph or down a 5-degree grade about 3 mph; or pushing a wheelbarrow with a heavy load (about 100 lbs.) on a level surface.

    c. *Heavy* (above 350 kcal per hour): Yes / No

If "yes," how long does this period last during the average shift: ___hrs. ___mins.

Examples of heavy work are lifting a heavy load (about 50 lbs.) from the floor to your waist or shoulder; working on a loading dock; shoveling; standing while bricklaying or chipping castings; walking up an 8-degree grade about 2 mph; climbing stairs with a heavy load (about 50 lbs.).

13. Will you be wearing protective clothing and/or equipment (other than the respirator) when you are using your respirator? Yes / No

If "yes," describe this protective clothing and/or equipment:

14. Will you be working under hot conditions (temperature exceeding 77°F): Yes / No

15. Will you be working under humid conditions: Yes / No

16. Describe the work you will be doing while using your respirator(s):

17. Describe any special or hazardous conditions you might encounter when you are using your respirator(s) (for example, confined spaces, life-threatening gases):

18. Provide the following information, if you know it, for each toxic substance that you will be exposed to when you are using your respirator(s):

Name of the first toxic substance:

Estimated maximum exposure level per shift:

Duration of exposure per shift:

Name of the second toxic substance:

Estimated maximum exposure level per shift:

Duration of exposure per shift:

Name of the third toxic substance:

Estimated maximum exposure level per shift:

Duration of exposure per shift:

The name of any other toxic substances that you will be exposed to while using your respirator:

19. Describe any special responsibilities you will have while using your respirator(s) that may affect the safety and well-being of others (for example, rescue, security).