

BEFORE THE BOARD OF COUNTY COMMISSIONERS
FOR COLUMBIA COUNTY, OREGON

In the Matter of Adopting a)
Respirator Protection Program)
_____)

ORDER NO. 10-2003

WHEREAS, Columbia County has no policy regarding a formal written respirator program for employees who are required to utilize respirators on the job; and

WHEREAS, Columbia County wishes to ensure that its employees are properly protected from airborne chemical hazards during their work activities;

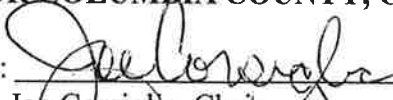
WHEREAS, OAR 437-003-1910 and 1926 require that an employer have a written policy establishing a respirator program and provide for specific details to be included in that policy;

WHEREAS, the Columbia County Human Resources has prepared Respirator Protection Program, a copy of which is attached hereto, labeled Exhibit "A" and incorporated herein by this reference, which provides procedures for employer and employee responsibilities in relation to this Program.

NOW, THEREFORE, IT IS HEREBY ORDERED that the Respirator Protection Program is adopted.

DATED this 12th day of February, 2003.

BOARD OF COUNTY COMMISSIONERS
FOR COLUMBIA COUNTY, OREGON

By: 
Joe Corsiglia, Chair

By: 
Rita Bernhard, Commissioner

By: 
Anthony Hyde, Commissioner

Approved as to form

By: 
Office of County Counsel

COLUMBIA COUNTY

RESPIRATOR PROTECTION PROGRAM

I. Purpose and Authority

The purpose of this Program is to ensure that County employees are properly protected from airborne chemical hazards during their work activities. This will be accomplished by: (1) evaluating respiratory hazards to select appropriate respirators; (2) ensuring that employees are medically able to wear respirators; (3) fit-testing employees with appropriate respirators; (4) establishing procedures to ensure that employees use respirators correctly; (5) ensuring that employees properly maintain and care for their respirators; (6) ensuring that high quality breathing air is supplied for respirators; (7) conducting ongoing respirator training; and, (8) periodically evaluating the Program's effectiveness.

II. Scope and Application

This Program applies to all employees who are required to wear respirators during their normal work activities and during emergencies. All employees required to wear respirators must be enrolled in this Respiratory Protection Program.

Any employee who asks to wear a respirator when one is not required will be provided with the information in Appendix A and must comply with those elements of this Program necessary to ensure that any employee using a respirator voluntarily is medically able to use that respirator and that the respirator is cleaned, stored and maintained so that its use does not present a health hazard to the employee (OAR 437-003-1926.103(c)(2)(ii)). Any employee who asks to wear only a filtering facepiece (dust mask) is not subject to the requirements of this Program (OAR 437-003-1926.103(c)(2)(ii)).

This Program will be updated as needed to reflect changes in workplace conditions and processes that affect employees' use of respirators.

III. Employer and Employee Responsibilities

The Program Administrator

The General Services Director is the Program Administrator for the overall Respiratory Protection Program. Each affected department will assign a Department Program Administrator to coordinate department level actions with the outline provided by the General Services Director. The Engineering Intern is the Department Program Administrator for the Road and Parks Departments. The Undersheriff is the Department Program Administrator for the Sheriff's Office. The General Services Director shall also act as the Department Program Administrator for the General Services Department.

The overall Program Administrator's responsibilities include (1) establishing procedures for selecting respirators; (2) developing fit-testing procedures for departments to use for tight-fitting respirators; (3) developing procedures for departments for the proper use of respirators in routine and emergency situations; (4) developing procedures for inspecting, cleaning, maintaining, repairing, and storing

respirators; (5) developing procedures for self-contained breathing apparatus; (6) providing training tools so that departments can ensure employee training, including respiratory hazards and the proper use and maintenance of respirators; and (7) regularly evaluating the Program.

The Department Program Administrator responsibilities include (1) selecting respirators for use based on the procedures established by the General Services Director; (2) coordinating with the Human Resources Director to arrange for employees' medical evaluations; (3) complying with the fit-testing procedures developed for tight-fitting respirators; (4) complying with the procedures developed for proper use of respirators in routine and emergency situations; (5) complying with the procedures developing schedules for inspecting, cleaning, maintaining, repairing, and storing respirators; (6) complying with the procedures developed for self-contained breathing apparatus; (7) ensuring employee training, including respiratory hazards and the proper use and maintenance of respirators; and (8) providing information needed to the General Services Director for evaluating the overall Program.

The Employer

The County will provide appropriate respirators when needed to protect the health of its employees. As part of the written respiratory protection program, the County will provide worksite procedures for all employees required to wear respirators.

The Employees

Employees who wear respirators must use them in accordance with the instructions and training provided. Employees must maintain their respirators properly and not alter them in any way.

Any employee wearing a respirator in a hazardous area must take reasonable periodic breaks in a safe area to rest and to wash the facepiece if it needs cleaning. If the respirator does not work properly on the job, the employee must immediately go to a safe area and report the problem to the supervisor.

IV. Program Elements

Hazard Evaluation

The County will identify and evaluate all workplace respiratory hazards. The evaluation will include a reasonable estimate of employee exposures to the hazards and the identity of each hazard's chemical state and physical form. The Department Program Administrator will make arrangements to evaluate employee exposures to respiratory hazards. The information will be used to select and assign respirators to employees.

Respirator Selection

The Department Program Administrator will select respirators by determining whether there is either a potential for employees to be exposed above the Permissible Exposure Limit (PEL) or there is a specific reason that an employee needs such protection. Only filters and/or chemical cartridges matched to expected atmospheric contaminants known to be present at County facilities will be used. A variety of respirator sizes will be selected to ensure a proper fit for all employees who need respirators.

The Department Program Administrator is responsible for selecting appropriate respirator filters and/or cartridges based on a review of material safety data sheets (MSDSs) or other relevant air contaminant data. The County will use only NIOSH-certified respirators. The Department Program Administrator will select respirators based on the criteria in OAR 1910.134.

Medical Evaluations

Each employee required to wear a respirator must be medically evaluated before being fit-tested. The County may discontinue an employee's medical evaluations when the employee is no longer required to use a respirator (OAR 437-003-1926.103(e)(1)). The Department Program Administrator will coordinate with the Human Resources Director to make arrangements for each employee to have a medical evaluation as appropriate. The Program Administrator will provide the confidential *OSHA Respirator Medical Evaluation Questionnaire*, attached as Appendix B to each employee who must complete it and deliver it to the professionally licensed health care professional designated by the Human Resources Director.

The Department Program Administrator will also provide the health care professional with the following information: (1) the type and weight of the respirator each employee will use; (2) the duration and frequency of use; (3) the expected physical work effort; (4) any other protective clothing and equipment worn; (5) temperature and humidity extremes at the workplace, and; (6) air contaminants and concentration levels that each employee may encounter.

The health care professional will discuss the results of the evaluation with the employee and provide a written determination to the Human Resources Director. The determination will not contain confidential medical information but will include: (1) the health care professional's opinion regarding the employee's ability to tolerate a respirator; (2) any limitations on respirator use; (3) any need for follow-up evaluations, and; (4) a statement that the employee has been informed of the determination.

The Human Resources Director will maintain a file with a written determination for each employee, designed by the Department Program Administrator as required to use a respirator.

Employees will receive follow-up medical evaluations under the following conditions: (1) the employee reports medical signs or symptoms related to respirator use; (2) the health care professional, a supervisor, or the Department Program Administrator recommends a reevaluation; (3) fit-test or other program information indicates a need for reevaluation; (4) when changes in the workplace increase respiratory stress on an employee.

Fit-testing

All employees using a tight-fitting facepiece respirator must pass an appropriate qualitative fit-test (QLFT) or quantitative fit-test (QNFT). The Program Administrator will determine which test is appropriate for each type of respirator. Qualitative and quantitative fit-tests will be administered with the appropriate OR-OSHA protocol from 1910.134, Appendix A. A qualitative fit-test will be used only to fit-test negative pressure air-purifying respirators that achieve a fit factor of 100 or less. Employees must be fit-tested before they are required to use a respirator for the first time; whenever they use a different respirator facepiece; and after any changes in their physical condition that could affect respirator fit.

Fit-tests will be administered using the employee's assigned respirator (from previous fit-testing results) or from a selection of respirators set up for fit-testing purposes (for an initial fit-test). All employees must be fit-tested annually.

Respirator use

Using tight-fitting respirators: Employees who have beards or other conditions that interfere with the face-to-facepiece seal or valve function cannot wear tight-fitting respirator facepieces (OAR 437.1926.103(g)(1)(i)(A)). Clean-shaven skin must contact all respirator sealing surfaces. Personal protective equipment or clothing that interferes with the face-to-facepiece seal or valve function is not permitted. Corrective lenses with temple bars or straps that interfere with the face-to-facepiece sealing area cannot be used with any respirator (OAR 437.1926.103(g)(1)(ii)). Each employee must perform a user seal check before putting on a tight-fitting respirator.

Monitoring respirator effectiveness: The Department Program Administrator will monitor and reevaluate the effectiveness of employees' respirators after any significant changes in work conditions or exposure levels. Employees must leave the areas in which they wear respirators to wash their faces and their respirator facepieces; if they detect facepiece leaks or changes in breathing resistance; and to change respirators, filters, cartridges, or canister elements.

Using respirators in IDLH (immediately dangerous to life or health) atmospheres: Any employee who enters an atmosphere immediately dangerous to life and health (IDLH) must follow the procedures below:

- At least one other employee must stay immediately outside the IDLH atmosphere to respond to emergencies.
- The person entering the IDLH atmosphere and the person outside the IDLH atmosphere must maintain visual, voice, or signal line contact.
- The person outside the IDLH atmosphere must be trained and equipped to provide effective emergency response.
- The person outside the IDLH atmosphere must be equipped with a positive-pressure SCBA **or** positive-pressure supplied-air respirator with auxiliary SCBA **and** appropriate rescue retrieval equipment.
- The Department Program Administrator or another designated person must be notified before an emergency responder enters the IDLH environment.

Respirator maintenance and care

Before any new respirator is used, it must be washed, cleaned, sanitized, and inspected according to the manufacturer's instructions or the instructions attached in Appendix C. Employees must clean and disinfect their own respirators after each use and store them in a sanitary location so that the facepieces and valves are not deformed. Respirators used for fit-testing must be cleaned and disinfected after each use by the person conducting the fit-test. Employees must inspect their respirators before they use them and after they clean them. Inspection includes a check of respirator function; tightness of connections; and the condition of the elastomeric facepiece, head straps, valves, connecting tubes, cartridges, canisters, and filters. Only trained employees can replace worn or deteriorated respirator parts. All repair work, adjustments, and replaced parts must comply with the respirator manufacturer's

instructions.

Identity of filters, cartridges, and canisters

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

Air quality in atmosphere-supplying respirators

Compressed oxygen, liquid oxygen, and compressed breathing air used in atmosphere-supplying respirators must meet the criteria provided in OAR 1910.134.

Training

Before any employee wears a respirator for the first time, he or she must receive and understand training that covers the following:

- why the respirator is necessary
- how improper fit, use, or maintenance can compromise the protective effect of the respirator
- the respirator's capabilities and limitations
- how to use the respirator in emergency situations, including situations in which the respirator malfunctions
- how to inspect, put on, check the seals, and remove the respirator
- proper maintenance and storage procedures
- how to recognize medical signs and symptoms that may limit or prevent effective use of the respirator

Training will be provided by the employee's supervisor with materials provided by the Program Administrator and will be fully documented, certifying that the employee understands the concepts presented and has demonstrated how to use and wear the respirator. The training must give each user an opportunity to handle the respirator; to have it fitted properly; to test its face-to-facepiece seal; to wear it in normal air for a trial period; and to wear in a test atmosphere. Retraining must be performed at least annually or as deemed necessary by the Program Administrator.

Employees who are responsible for inspecting emergency and supplied-air respirators will receive supplied-air respirator-specific training. Employees who ask for and are permitted to wear respirators must first read the information attached in Appendix A.

V. Program Evaluation

The Program Administrator will evaluate this program annually or as often as necessary to ensure that it remains effective. The Administrator will consult employees and/or Department Program Administrators about respirator fit, selection, proper use and maintenance and will make periodic workplace observations to confirm that respirators are being used and maintained correctly.

VI. Record keeping

The Department Program Administrator will maintain records of fit testing and annual inspection audits and make them available to the Program Administrator, employees and to OR-OSHA. The Department Program Administrator will provide records to the Human Resources Director who will maintain records of the non-confidential medical evaluation determinations and the training documentation.

APPENDIX A - INFORMATION FOR EMPLOYEES USING RESPIRATORS WHEN NOT REQUIRED UNDER THE STANDARD (MANDATORY)

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. Keep track of your respirator so that you do not mistakenly use someone else's respirator.

**APPENDIX B - RESPIRATOR MEDICAL EVALUATION QUESTIONNAIRE
(MANDATORY)**

To the employer: Answers to questions in Section 1, and to question 9 in Section 2 of Part A, do not require a medical examination.

To the employee: 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 every employee who has been selected to use any type of respirator (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 the Area Code):

9. The best time to phone you at this matter:

10. Has your employer told you how to contact the health care professional who will review this questionnaire (circle one): Yes / No
11. Check the type of respirator you will use

(you can check more than one category):

a. _____ N, R, or P disposable respirator (filter-mask, non-cartridge type only).

b. _____ Other type (for example, half-or full-facepiece type, powered-air purifying, supplied-air, self-contained breathing apparatus).

12. Have you worn a respirator (circle one):
Yes / No

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

Part A. Section 2. (Mandatory) Questions 1 through 9 below must be answered by every employee who has been selected to use any type of respirator (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've
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?

- 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've 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 interfere with your job: Yes / No
- d. In the past two years, have you notice 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?

- a. Breathing or lung problems: Yes / No
- b. Heart trouble: Yes / No
- c. Blood pressure: Yes / No
- d. Seizures: Yes / No

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 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 to this questionnaire:
Yes / No

Questions 10 to 15 below must be answered by every employee who has been selected to use either a full-facepiece respirator or a self-contained breathing apparatus (SCBA). For employees who

have been selected to use other types of respirators, answering these questions is voluntary.

that interferes with using a respirator:
Yes / No

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

11. Do you *currently* have any of the following vision problems?

- a. Wear contact lenses: Yes / No
- b. Wear glasses: Yes / No
- c. Color blind: Yes / No
- d. Any other eye or vision problem: Yes / No

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

13. Do you *currently* have any of the following hearing problems?

- a. Difficulty hearing: Yes / No
- b. Wear a hearing aid: Yes / No
- c. Any other hearing or ear problem: Yes / No

14. Have you *ever had* a back injury: Yes / No

15. 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

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

Part B Any of the following questions, and other questions not listed, may be added to the questionnaire at the discretion of the health care professional who will review the questionnaire.

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're working under these conditions: Yes / No

2. At work or at home, have you ever been exposed to hazardous solvents, hazardous airborne chemicals (e.g., 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 (e.g., in sandblasting): Yes / No
- c. Tungsten/cobalt (e.g., 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:

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) (circle "yes" or "no" for all answers that apply to you)?

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 (1-3lbs.) 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 (100 lbs.) on a level surface.

13. Will you be wearing protective clothing and/or equipment (other than the respirator) when you're 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'll be doing while you're using your respirator(s):

17. Describe any special or hazardous conditions you might encounter when you're using your respirator(s) (for example, confined spaces,

life-threatening gases):

18. Provide the following information, if you know introductory text, for each toxic substance that you'll be exposed to when you're 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'll be exposed to while using your respirator: _____

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

APPENDIX B-1 - RESPIRATOR MEDICAL EVALUATION QUESTIONNAIRE
(MANDATORY)

To the employer: Answers to questions in Section 1, and to question 9 in Section 2 of Part A, do not require a medical examination.

To the employee: 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 every employee who has been selected to use any type of respirator (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 the Area Code):

9. The best time to phone you at this matter:

10. Has your employer told you how to contact the health care professional who will review this questionnaire (circle one): Yes / No
11. Check the type of respirator you will use

(you can check more than one category):

a. _____ N, R, or P disposable respirator (filter-mask, non-cartridge type only).

b. _____ Other type (for example, half-or full-facepiece type, powered-air purifying, supplied-air, self-contained breathing apparatus).

12. Have you worn a respirator (circle one):
Yes / No

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

Part A. Section 2. (Mandatory) Questions 1 through 9 below must be answered by every employee who has been selected to use any type of respirator (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've
been told about: Yes / No
4. Do you currently have any of the following
symptoms of pulmonary or lung illness?
- Shortness of breath: Yes / No
 - Shortness of breath when walking fast
on level ground or walking up a slight
hill or incline: Yes / No
 - Shortness of breath when walking with
other people at an ordinary pace on
level ground: Yes / No
 - Have to stop for breath when walking at
your own pace on level ground:
Yes / No
 - Shortness of breath when washing or
dressing yourself: Yes / No
 - Shortness of breath that interferes with
your job: Yes / No
 - Coughing that produces phlegm (thick
sputum): Yes / No
 - Coughing that wakes you early in the
morning: Yes / No
 - Coughing that occurs mostly when you
are lying down: Yes / No
 - Coughing up blood in the last month:
Yes / No
 - Wheezing: Yes / No
 - Wheezing that interferes with your job:
Yes / No
 - Chest pain when you breathe deeply:
Yes / No
 - 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?
- Heart attack: Yes / No
 - Stroke: Yes / No
 - Angina: Yes / No
 - Heart failure: Yes / No
 - Swelling in your legs or feet (not caused
by walking): Yes / No
 - Heart arrhythmia (heart beating
irregularly): Yes / No
- g. High blood pressure: Yes / No
- h. Any other heart problem that you've
been told about: Yes / No
6. Have you *ever* had any of the following
cardiovascular or heart symptoms?
- Frequent pain or tightness in your
chest:
Yes / No
 - Pain or tightness in your chest during
physical activity: Yes / No
 - Pain or tightness in your chest that
interfere with your job: Yes / No
 - In the past two years, have you notice
your heart skipping or missing a beat:
Yes / No
 - Heartburn or indigestion that is not
related to eating: Yes / No
 - 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?
- Breathing or lung problems: Yes / No
 - Heart trouble: Yes / No
 - Blood pressure: Yes / No
 - Seizures: Yes / No
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
space and go to question 9:)
- Eye irritation: Yes / No
 - Skin allergies or rashes: Yes / No
 - Anxiety: Yes / No
 - General weakness or fatigue: Yes / No
 - 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 to this questionnaire:
Yes / No
- Questions 10 to 15 below must be answered by
every employee who has been selected to use either
a full-facepiece respirator or a self-contained
breathing apparatus (SCBA). For employees who

have been selected to use other types of respirators, answering these questions is voluntary.

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

11. Do you *currently* have any of the following vision problems?

- a. Wear contact lenses: Yes / No
- b. Wear glasses: Yes / No
- c. Color blind: Yes / No
- d. Any other eye or vision problem: Yes / No

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

13. Do you *currently* have any of the following hearing problems?

- a. Difficulty hearing: Yes / No
- b. Wear a hearing aid: Yes / No
- c. Any other hearing or ear problem: Yes / No

14. Have you *ever had* a back injury: Yes / No

15. 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

APPENDIX B-2 - RESPIRATOR MEDICAL EVALUATION QUESTIONNAIRE

Part B Any of the following questions, and other questions not listed, may be added to the questionnaire at the discretion of the health care professional who will review the questionnaire.

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're working under these conditions: Yes / No

2. At work or at home, have you ever been exposed to hazardous solvents, hazardous airborne chemicals (e.g., 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 (e.g., in sandblasting): Yes / No
 - c. Tungsten/cobalt (e.g., 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) (circle "yes" or "no" for all answers that apply to you)?
- 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 (1-3lbs.) 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 (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're 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'll be doing while you're using your respirator(s):

17. Describe any special or hazardous conditions you might encounter when you're using your

respirator(s) (for example, confined spaces, life-threatening gases):

18. Provide the following information, if you know introductory text, for each toxic substance that you'll be exposed to when you're 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'll be exposed to while using your respirator: _____

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

APPENDIX C-1 USER SEAL CHECK PROCEDURES (MANDATORY)

The individual who uses a tight-fitting respirator is to perform a user seal check to ensure that an adequate seal is achieved each time the respirator is put on. Either the positive and negative pressure checks listed in this appendix, or the respirator manufacturer's recommended user seal check method shall be used. User seal checks are not substitutes for qualitative or quantitative fit test.

I. Facepiece Positive and/or Negative Pressure Checks

A. Positive pressure check. Close off the exhalation valve and exhale gently into the facepiece. The face fit is considered satisfactory if a slight positive pressure can be built up inside the facepiece without any evidence of outward leakage of air at the seal. For most respirators this method of leak testing requires the wearer to first remove the exhalation valve cover before closing off the exhalation valve and then carefully replacing it after the test.

B. Negative pressure check. Close off the inlet opening of the canister or cartridge(s) by covering with the palm of the hand(s) or by replacing the filter seal(s), inhale gently so that the facepiece collapses slightly, and hold the breath for ten seconds. The design of the inlet opening of some cartridges cannot be effectively covered with the palm of the hand. The test can be performed by covering the inlet opening of the cartridge with a thin latex or nitrile glove. If the facepiece remains in its slightly collapsed condition and no inward leakage of air is detected, the

tightness of the respirator is considered satisfactory.

II. Manufacturer's Recommended User Seal Check Procedures

The respirator manufacturer's recommended procedures for performing a user seal check may be used instead of the positive and/or negative pressure check procedures provided that the employer demonstrates that the manufacturer's procedures are equally effective.

Appendix C-2 RESPIRATOR CLEANING PROCEDURES (MANDATORY)

These procedures are provided for employer use when cleaning respirators. They are general in nature, and the employer as an alternative may use the cleaning recommendations provided by the manufacturer of the respirators used by their employees, provided such procedures are as effective as those listed here in Appendix C-2. Equivalent effectiveness simply means that the procedures used must accomplish the objectives set forth in Appendix C-2, i.e., must ensure that the respirator is properly cleaned and disinfected in a manner that prevents damage to the respirator and does not cause harm to the user.

I. Procedures for Cleaning Respirators

A. Remove filters, cartridges, or canisters. Disassemble facepieces by removing speaking diaphragms, demand and pressure-demand valve assemblies, hoses, or any components recommended by the manufacturer. Discard or repair any defective parts.

B. Wash components in warm (43C. {110F.} maximum) water with a mild detergent or with a cleaner recommended by the manufacturer. A stiff bristle (not wire) brush may be used to facilitate the removal of dirt.

C. Raise components thoroughly in clean, warm (43C. {110F.} maximum), preferably running water. Drain.

D. When the cleaner used does not contain a disinfecting agent, respirator components should be immersed for two minutes in one of the following:

1. Hypochlorite solution (50 ppm of chlorine) made by adding approximately one milliliter of laundry bleach to one liter of water at 43 C. (110 F.); or,

2. Aqueous solution of iodine (50 ppm iodine) made by adding approximately 0.8 milliliters of tincture of iodine (6-8 grams ammonium and/or potassium iodide/100 cc of 45% alcohol) to one liter of water at 43 C. (100 F.); or,

3. Other commercially available cleansers of equivalent disinfectant quality when used as directed, if their use is recommended or approved by the respirator manufacturer.

E. Raise components thoroughly in clean, warm (43 C. [110 F.] maximum), preferably running water. Drain. The importance of thorough rinsing cannot be overemphasized. Detergents or disinfectants that dry on facepieces may result in dermatitis. In addition, some disinfectants may cause deterioration of rubber or corrosion of metal parts if not completely removed.

F. Components should be hand-dried with a clean lint-free cloth or air-dried.

G. Reassemble facepiece, replacing filters, cartridges, and canisters where necessary.

H. Test the respirator to ensure that all components work properly.