# DEPARTMENT OF CORRECTIONS
## Human Resources

<table>
<thead>
<tr>
<th>Title:</th>
<th>Respiratory Protection</th>
<th>DOC Policy: 20.6.9</th>
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<tbody>
<tr>
<td>Supersedes:</td>
<td>DOC Policy 20.6.9, &quot;Respiratory Protection,&quot; Dated 7/15/98</td>
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<td>Applicability:</td>
<td>All employee's</td>
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<tr>
<td>Reference:</td>
<td>OAR 437, Division 2, Subdivision I, Respiratory Protection</td>
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## I. PURPOSE

To establish policy and procedures for the effective use of respirators to protect employees from hazardous atmosphere exposures.

## II. DEFINITIONS

A. Air-purifying respirator: A respirator with a filter, cartridge, or canister that removes specific contaminants by passing ambient air through an element.

B. Atmosphere-supplying respirator: A respirator that supplies breathing air from a source other than the ambient air, i.e., SCBA.

C. Demand pressure: An air supplying respirator that admits air to the facepiece only during inhalation.

D. Employee exposure: Exposure to an airborne contaminant.

E. End of Service life indicator (ESLI): A system that warns the user when the respirator is no longer effective or at the end of its useful life.

F. Filtering facepiece (dust masks): A negative pressure particulate respirator.

G. Fit tests: The use of a qualitative or quantitative test to fit tests a respirator on an individual.

H. Immediately dangerous to life of health (IDLH): An atmosphere that poses as immediate threat to life, cause irreversible adverse health effects, or would impair an individual's ability to escape from a dangerous atmosphere (all atmospheres below 19.5% are considered IDLH).

I. Loose-fitting facepiece: A respirator that is designed to form a partial seal with face.

J. Negative pressure respirator (tight fitting): Air pressure inside the facepiece is negative during inhalation with respect to the ambient air pressure.

K. Oxygen deficient atmosphere: Oxygen content of air below 19.5% by volume.
L. Physician or other licensed health care professional (PLHCP): An individual whose legally permitted scope of practice allows him/her to provide health care services required by this procedure.

M. Positive pressure respirator: A respirator in which the pressure inside the facepiece exceeds the ambient air pressure.

N. Powered air-purifying respirator (PAPR): A respirator that uses a blower to force the ambient air through the respirator.

O. Pressure demand respirator: A respirator that admits air to the facepiece when the positive pressure inside the facepiece is reduced by inhalation.

P. Qualitative fit test (QLFT): A pass/fail test to assess the adequacy of the respirator fit that relies on the individual’s response to the test agent.

Q. Quantitative fit test (QNFT): An assessment of the adequacy of the respirator fit by measuring the amount of leakage into the respirator.

R. Supplied-air respirator (SAR) or airline respirator: An air supplying respirator for which the source of air is not designed to be carried by the user.

S. Tight-fitting facepiece: A respirator that forms a complete seal with the face.

T. User seal check: An action conducted by the user to determine if the respirator is properly seated to the face.

III. POLICY

A. The department shall evaluate the workplace for respiratory hazards and provide respirators when effective engineering controls are not effective or feasible to control contaminated breathing air.

B. An individual shall be designated in writing, at each institution that is qualified to administer or oversee and evaluate the effectiveness of this program.

C. All respirators, training, and medical evaluations shall be provided at no cost to the employee.

D. Training and fit testing for respirator use shall be provided before the employee is required to use a respirator in the work place.

E. Medical evaluations of employees required to use respirators shall be that:

1. They are performed before the employee is fit tested or required to use a respirator in the workplace.
2. The employer identifies a physician of other licensed health care professional (PLHCP) to perform medical evaluation using a medical questionnaire or by initial medical exam.

3. They are done using a Medical questionnaire (Attachment A).

4. The department ensures that a follow-up medical examination is provided for an employee who gives a positive response to any question among questions 1-8 in Attachment A.

5. The medical exam includes any medical tests the PLHCP deems necessary to determine if the user can wear a respirator.

6. The questionnaire is administered confidentially during the employee's normal working hours.

7. The employee completing the questionnaire place the completed questionnaire in an envelope, seal it and have it forwarded to the PLHCP. The questionnaire is to be viewed only by the PLHCP.

8. The department provides the employee the opportunity to discuss the questionnaire and examination results with the PLHCP.

9. Any supplemental information needed by the PLHCP before a determination of the employee's ability to use a respirator is made is provided.

10. A written recommendation is received from the PLHCP regarding the employee's ability to use a respirator and shall include:

   a. Only limitations on respirator use, i.e., use/no use, time constraints or respirator selection.

   b. The need for a follow-up medical evaluation, if any.

   c. A statement that the PLHCP has provided the employee with a copy of the written recommendation.

11. Additional medical evaluations are provided if:

   a. The employee reports medical signs or symptoms that are related to ability to use a respirator.

   b. A PLHCP, supervisor or the respirator program administrator determines that an employee needs to be reevaluated.

   c. Information from the respiratory protection program including observation during fit testing and evaluation indicates a need for reevaluation.
d. There are any changes in the workplace that may result in a substantial increase in the physiological burden placed on an employee.

F. Fit testing procedures for tightfitting respirators shall be that:

1. Testing is completed with the same make, model, style, and size of the respirator that will be used.

2. Employees pass the appropriate, qualitative fit test (QLFT) or quantitative fit test (QNFT) as outlined in OAR 437, Division 2, Subdivision I, Respiratory Protection, App A, or any other OR-OSHA approved fit test protocol.

3. The employee is fit tested whenever a different respirator is used, i.e., change in size, style, model, or make.

4. Fit testing is done annually.

5. Additional fit testing is provided, if there are physical changes in the employee that could affect the respirator fit.

6. The employee may request additional fit testing if fit of the respirator is unacceptable.

7. Fit testing of tight-fitting respirators is accomplished by performing quantitative or qualitative fit testing the negative pressure mode.

G. Respirator, selection shall be that:

1. The department provides a respirator that is adequate to protect the health of the employee and ensure compliance with all other Oregon Occupational Safety and Health Administration (OR-OSHA) requirements.

2. Only National Institute for Occupational Safety and Health (NIOSH) certified respirators are used.

3. Respirators are appropriate for the chemical state and physical form of the contaminant.

4. For protection against gases and vapors, the department shall provide:

   a. An atmosphere-supplying respirator, or

   b. An air-purifying respirator that is equipped with an end-of-life-service-indicator (ESLI). If no ESLI is available the employer
will implement an appropriate change schedule to protect the employee.

5. For protection against particulate, the department shall provide:
   a. An atmosphere-supplying respirator, or
   b. An air-purifying respirator with the appropriate NIOSH-CERTIFIED filter or cartridges.

6. Respirators used for immediately dangerous to life or health (IDLH) atmospheres shall be:
   a. A full facepiece pressure demand self contained breathing apparatus (SCBA).
   b. A full facepiece pressure demand supplied-air respirator (SAR) with auxiliary self-contained air supply.

H. Filters, cartridges, and canister selection shall be that:
   1. All filters cartridges and canisters used in the workplace are labeled and color-coded with the approved NIOSH label (Attachment B).
   2. The label is legible and is not removed during service.

I. Proper use of respirators in routine and reasonably foreseeable emergency situations.
   1. Facepiece seal protection shall be that:
      a. Tight fitting respirators shall not be worn by employee’s who have facial hair that comes between the sealing surface or the facepiece and the face or that interferes with the valve function or any condition that interferes with the face-to-face seal of valve function.
      b. Corrective glasses, goggles or other personal protective equipment be worn in a manner that does not interfere with the seal of the facepiece on tight fitting respirators.
      c. A user seal check is performed each time the tight fitting respirator is used (Attachment C).
   2. Continuing respirator effectiveness shall be that:
      a. The work area is under surveillance with regard to work area conditions and degree of employee exposure or stress while wearing a respirator.
b. The department ensures that employees are allowed to leave the respirator use area:

(1) To wash their faces and respirator facepiece as necessary to prevent eye or skin irritation associated with respirator use.

(2) If they detect a vapor or gas breakthrough, changes in breathing resistance or leakage of the facepiece.

(3) To replace the respirator or the filter, cartridge, or canister elements.

c. Respirators are repaired or replaced if the employee detects vapor or gas breakthrough, breathing resistance, or leakage of the facepiece.

3. Procedures for IDLH atmospheres, the department shall ensure that:

a. One employee, at a minimum is located outside the IDLH atmosphere.

b. Visual, voice, or signal line communication is maintained between the employee inside and outside the IDLH atmosphere.

c. The employees(s) outside the IDLH atmosphere are trained and equipped to provide an effective emergency rescue and shall have:

(1) An SCBA.

(2) Appropriate or equivalent retrieval equipment necessary for the IDLH atmosphere.

d. The supervisor or incident commander is notified before the employee outside the IDLH atmosphere enters the IDLH atmosphere to provide emergency rescue and necessary assistance is provided appropriate to the situation.

4. Additional Procedures for interior structural firefighting shall be that:

a. At least two employees will enter the IDLH atmosphere and remain in visual or voice contact with one another at all times.

b. All employees engaged in interior structural firefighting use SCBA’s.

J. Cleaning, storage, inspection, repairs, and maintenance of respirators.
1. Cleaning and disinfecting shall be done according to procedures as listed in Attachment D or manufactures equivalent and shall be that:
   a. Issued respirators are cleaned and disinfected as often as necessary to be maintained in a sanitary condition.
   b. Respirators issued to more than one person shall be cleaned and disinfected before being worn by different individuals.
   c. Respirators used in emergency situations shall be cleaned and disinfected after each use.
   d. Respirators used in fit testing shall be cleaned and disinfected after each use.

2. Storage shall be that:
   a. All respirators are stored to protect them from damage, contamination, dust, sunlight, extreme temperatures, excessive moisture, and damaging chemicals.
   b. All respirators are stored or packed to prevent deformation of the facepiece and exhalation valve.
   c. All emergency respirators are accessible to the work area. Stored in compartments or in covers that are clearly marked as containing emergency respirators and following manufactures storage recommendations.

3. Respirator inspection shall be that:
   a. All respirators used in routine situations are inspected before each use and during cleaning.
   b. All respirator inspections include the following:
      (1) A check of respirator function.
      (2) The tightness of connections.
      (3) The condition of all visible parts.
      (4) A check of elastomeric parts for pliability and signs of deterioration.
   c. All respirators maintained for use in emergency situations are inspected at least monthly and before and after each use for proper function, in accordance with the manufacture’s
recommendations. Records of monthly inspections shall be maintained and include:

(1) The inspection dates.

(2) The name of the inspector.

(3) The findings of the inspection.

(4) Required remedial action.

(5) A means of tracking or identifying the respirator.

d. SCBA inspections shall be that:

(1) They are done at least monthly.

(2) Cylinders are inspected, maintained and will be in a fully charged state. Cylinders will be recharged when the pressure falls below 90% of the manufactures recommended pressure.

(3) That the regulator and warning devices function properly.

4. Repairs and Maintenance. All respirators that fail inspection or that is otherwise found to be defective are to be removed from service and shall be, discarded, repaired, or adjusted in accordance with the following:

a. Repairs or adjustments are to be made by appropriate trained personnel. Reducing and admission valves, regulators, and alarms shall be adjusted or repaired only by the manufacturer or technician trained by the manufacturer.

b. Only manufacture NIOSH approved, parts shall be used.

c. Repairs and maintenance shall be done according to manufacture recommendations.

K. Procedures to ensure adequate air quality, quantity, and flow of air for atmosphere-supplying respirators (SCBA’s).

1. The Department shall ensure that compressed breathing air meets the requirements of ANSI standard Type 1-Grade D breathing air.

2. The department shall ensure that compressed oxygen is not used in respirators that previously used compressed air.
3. The department shall ensure that cylinders used to supply breathing air to respirators:
   
   a. Are tested and maintained.

   b. That have been purchased fully charged with breathing air have a certificate of analysis from the supplier that the air meets the requirements for Type 1-Grade D breathing air.

L. Training of employees.

1. The department Human Resource Training shall be responsible for general awareness training and administration of training records for employees. Site-specific training shall be done at functional units. Awareness training shall include:

   a. An overview of the Respiratory Protection Program.

   b. Information as to the location of the written respiratory protection program.

   c. The contact person for site-specific training.
2. The department shall ensure that each employee can demonstrate knowledge of at least the following:

   a. Why the respirator is necessary and how improper fit, usage, or maintenance can compromise the protective effect of the respirator.

   b. What the limitations and capabilities of the respirator are.

   c. How to, inspect, put on and remove, use and check the seals of the respirator.

   d. What the procedures are for maintenance and storage of the respirator.

   e. How to recognize medical signs and symptoms that may limit or prevent the effective use of the respirator.

3. Training will be conducted in a manner that is understandable to the employee.

4. Retraining/fit testing shall be administered annually or sooner when any of the following situations occur:

   a. Changes in the workplace or the type of respirator render previous training obsolete.

   b. There is an inadequacy in the employee’s knowledge or use of the respirator that indicate that the employee has not retained the required understanding or skill needed to use a respirator.

   c. Any other situation that may arise which indicates that retraining appears necessary to ensure safe respirator use.

M. Procedures to evaluate the effectiveness of the program.

1. The Department shall conduct evaluations of the workplace as necessary to ensure that the provisions of the program are being effectively implemented and that it continues to be effective.

2. The department shall regularly consult employees who are required to use respirators to assess the employee’s views on program effectiveness and to identify problems. Factors to be assessed included:

   a. Respirator fit.
b. Appropriate respirator selection for the hazards to which the employee is exposed.

c. Proper respirator use under the workplace conditions the employee encounters.

d. Proper respirator maintenance.

3. Record keeping

a. Medical evaluation records shall be maintained and made available to employees and to representatives of the Assistant Secretary of Labor for Occupational Safety and Health in accordance with 29 CFR 1910.1020.

b. Training/fit testing records will be established and maintained (Attachment E).

c. The department shall maintain the written program.

IV. IMPLEMENTATION

This policy will be adopted immediately without further modification.
Department of Corrections
Respirator Medical Questionnaire

Name: ____________________________________________ Date: ______________

Age: ___________ Sex:  M  F  Height: _________ Weight: __________

Institution: _____________________ Job Title: _____________________________

This questionnaire is a confidential document not to be viewed by your superiors.

<table>
<thead>
<tr>
<th>Type and weight of respirator to be used:</th>
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<th>Duration and frequency of use, including escape:</th>
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<th>Expected physical work effort:</th>
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<th>Additional protective clothing and equipment to be worn:</th>
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<th>Temperature and humidity extremes that may be encountered:</th>
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<tr>
<th>Phone number where health care professional who reviews this questionnaire can reach you:</th>
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<tr>
<th>Best time to be reached at the above number:</th>
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| Have you been informed how to contact the health care professional who will review this form? |
| Yes | No |

<table>
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<tr>
<th>Have you worn a respirator? If &quot;yes&quot; what type(s):</th>
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<tr>
<th>All answers to questions are to remain confidential. Positive answers to questions 1-8 require a follow-up medical examination.</th>
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| 1. Do you currently smoke tobacco, or have you smoked tobacco in the last month? |
| Yes | No |

<p>| 2. Have you had any of the following conditions? |</p>
<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
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<tbody>
<tr>
<td>a. Seizures (fits):</td>
<td></td>
</tr>
<tr>
<td>b. Diabetes (sugar disease):</td>
<td></td>
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<tr>
<td>c. Allergic reactions that interfere with your breathing:</td>
<td></td>
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<tr>
<td>d. Claustrophobia (fear of closed-in places):</td>
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<td>e. Trouble smelling odors:</td>
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### Department of Corrections

**Respirator Medical Questionnaire (cont.)**

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<tbody>
<tr>
<td>3. Have you ever had any of the following pulmonary or lung problems?</td>
<td></td>
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</tbody>
</table>
| 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 |

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<tr>
<td>4. Do you currently have any of the following symptoms of pulmonary or lung illness?</td>
<td></td>
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</table>
| 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?

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

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<tbody>
<tr>
<td>a. Frequent pain or tightness in your chest:</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
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<tr>
<td>b. Pain or tightness in your chest during physical activity:</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
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<tr>
<td>c. Pain or tightness in your chest that interferes with your job:</td>
<td>Yes</td>
<td>No</td>
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<tr>
<td>d. In the past two years, have you noticed your heart skipping or missing a beat:</td>
<td>Yes</td>
<td>No</td>
<td></td>
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<td>e. Heartburn or indigestion that is not related to eating:</td>
<td>Yes</td>
<td>No</td>
<td></td>
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<tr>
<td>f. Any other symptom that you think may be related to heart or circulation problems:</td>
<td>Yes</td>
<td>No</td>
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7. Do you currently take medication for any of the following problems?

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<tbody>
<tr>
<td>a. Breathing or lung problems:</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
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<tr>
<td>b. Heart trouble:</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
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<tr>
<td>c. Blood pressure:</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
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<tr>
<td>d. Seizures (fits):</td>
<td>Yes</td>
<td>No</td>
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8. If you have used a respirator, have you ever had any of the following problems? (If you have never used a respirator circle NA and go to question 9:)

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<tbody>
<tr>
<td>a. Eye irritation:</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Skin allergies or rashes:</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
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<tr>
<td>c. Anxiety:</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
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<tr>
<td>d. General weakness of fatigue:</td>
<td>Yes</td>
<td>No</td>
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Department of Corrections

Respirator Medical Questionnaire (cont.)

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

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

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 lens:  
    | b. Wear glasses:  
    | c. Color blind:  
    | d. Any other eye or vision problems:  
   | Yes | No |

12. Have you ever had any injury to your ears, including a broken eardrum?  
    | Yes | No |

13. Do you currently have any of the following hearing problems?
    | a. Difficulty hearing:  
    | b. Wear a hearing aid:  
    | 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:  
    | b. Back pain:  
    | c. Difficulty fully moving your arms and legs:  
    | d. Pain or stiffness when you lean forward or backward at the waist:  
    | e. Difficulty fully moving your head side to side:  
    | f. Difficulty fully moving your head up and down:  
    | g. Difficulty bending at your knees:  
    | h. Difficulty squatting to the ground:  
    | i. Climbing a flight of stairs or a ladder carrying more than 25 lbs.:  
    | j. Any other muscle or skeletal problem that interferes with using a respirator:  
   | Yes | No |
The identification of respirator cartridges, canisters, or filters shall be NIOSH approved labels and colors.

<table>
<thead>
<tr>
<th>Atmospheric Contaminants to be Protected Against</th>
<th>Color Assigned*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acid gases</td>
<td>White</td>
</tr>
<tr>
<td>Hydrocyanic acid gas</td>
<td>White with 1/2 inch green stripe completely around the canister near the bottom.</td>
</tr>
<tr>
<td>Chlorine gas</td>
<td>White with 1/2 inch yellow stripe completely around the canister near the bottom.</td>
</tr>
<tr>
<td>Organic vapors</td>
<td>Black</td>
</tr>
<tr>
<td>Ammonia gas</td>
<td>Green</td>
</tr>
<tr>
<td>Acid gases and organic vapors</td>
<td>Yellow</td>
</tr>
<tr>
<td>Carbon monoxide</td>
<td>Blue</td>
</tr>
<tr>
<td>Hydrocyanic acid gas and chloropicrin vapor</td>
<td>Yellow with 1/2 inch blue stripe completely around the canister near the bottom.</td>
</tr>
<tr>
<td>Acid gases, organic vapors, and ammonia gases</td>
<td>Brown</td>
</tr>
<tr>
<td>Radioactive materials, excepting tritium and noble gases</td>
<td>Purple (Magenta)</td>
</tr>
<tr>
<td>Particulate (dust, fumes, mists, fogs, or smokes) in combination with any of the above gases or vapors</td>
<td>Canister color for contaminant as designated above with 1/2 inch gray stripe completely around the canister near the top.</td>
</tr>
<tr>
<td>All of the above atmospheric contaminants</td>
<td>Red with 1/2 inch gray stripe completely around the canister near the top.</td>
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</tbody>
</table>

* Gray should not be assigned as the main color for a canister designed to remove acids or vapors. Orange shall be used as a complete body, or stripe color to represent gases not included in this table. The user shall need to refer to the canister label to determine the degree of protection the canister shall afford.
The use of a tight-fitting respirator requires that the user 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 check listed or the manufacturer's recommended user seal check method shall be used.

1. **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.

2. **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 the facepiece collapses slightly, and hold the breath for ten seconds. The design of the inlet opening of some cartridges may not be effectively covered with the palm of the hand if this condition exists, this 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.

3. **Manufacture's Recommended User Seal Check:** The manufacture's recommended procedures for performing a user seal check may be used instead of the procedures listed above provided that they are demonstrated to be equally effective as the checks listed above.
Respirator Cleaning Procedure

This procedure is general in nature for the requirements of cleaning and disinfecting a respirator. The manufacturer's recommended procedures may be substituted if they are effectively equivalent.

1. Remove filters, cartridges, or canisters.

2. Disassemble facepiece by removing speaking diaphragms, demand and pressure-demand valve assemblies, hoses, or any component(s) recommended by the manufacturer. Discard or repair any defective parts.

3. Wash components in warm water with mild detergent or with a cleaner recommended by the manufacturer. A soft brush may be used to facilitate the removal of dirt. Do not let cleaner dry on respirator. NOTE: Check with manufacturer of the respirator to be sure cleaner is compatible with the materials used in the respirator.

4. When the cleaner does not contain a disinfecting agent, respirator components should be immersed for two minutes in one of the following: NOTE: Check with manufacturer of the respirator to be sure disinfecting agent is compatible with the materials used in the respirator.

   A. Hypochlorite solution (50 ppm of chlorine) made by adding approximately one milliliter of laundry bleach (5.25 sodium hypochlorite) to one liter of warm water.

   B. Aqueous solution of iodine (50 ppm iodine) made by adding approximately 0.8 milliliters of tincture of iodine (6-8 grams ammonium or potassium iodide /100cc of 45% alcohol) to one liter of warm water.

5. Other equivalent cleaners and disinfectants may be used as directed if the manufacturer of the respirator recommends their use.

6. Rinse components thoroughly in clean warm, preferably running water to remove disinfectant. Do not let disinfectants dry onto the respirator.

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

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

9. Test the respirator to ensure that all components work properly.
Department of Corrections     Attachment E
Respirator Training Record

<table>
<thead>
<tr>
<th>Employee Name:</th>
<th>Social Security Number:</th>
<th>Institution:</th>
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<tbody>
<tr>
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<tr>
<th>Job Title:</th>
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I have received training for the following respirator protection devices. This training included; Respiratory Hazards, Respiratory Selection, Use Limitations, Maintenance, and Cleaning. I wore the respirator(s) briefly, was fit-tested, and learned to check for proper fit.

<table>
<thead>
<tr>
<th>Respirator Brand</th>
<th>Model No.</th>
<th>Type (dust/vapor/other)</th>
<th>Fit Test Used</th>
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</thead>
<tbody>
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</tbody>
</table>

Employee signature | Date | Trainer Signature | Date
---|---|---|---

Annual Training

<table>
<thead>
<tr>
<th>Respirator Brand</th>
<th>Model No.</th>
<th>Type (dust/vapor/other)</th>
<th>Fit Test Used</th>
</tr>
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<tbody>
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Employee signature | Date | Trainer Signature | Date
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cc: Safety Manager
Employee
Human Resources Training

CD 1406 (1/01)