

CITY AND COUNTY OF DENVER

Respiratory Policy		
Occupational Health & Safety Management System 65.6.4 This policy has been developed and shall be implemented under the authority of Executive Order No. 65 and the Risk Management Office.	January 2008	Prepared / Revised By: Risk Management – Safety Unit

1.0 Introduction

This policy has been developed to minimize the risk of occupational related respiratory injury / illness to the employees of the City and County of Denver. It provides guidance to city departments / agencies for applicable compliance with regulations pertaining to respiratory personal protective equipment (PPE). In theory, work activities and condition should be engineered and administratively controlled in such a manner that respiratory PPE would not be necessary. However, because of the unique nature of tasks and associated hazards faced by employees working within the various city departments, often in remote locations within diverse hazardous or potentially hazardous environments, it is not possible to engineer or administratively control all hazardous atmospheric conditions expected to be encountered.

2.0 Respirators

- Respirator: A device to protect the wearer from inhalation of harmful contaminants.

- Air Purifying Respirator (APR): A respirator with an air purifying filter cartridge or canister that removes specific air contaminants by passing ambient air through the air purifying element.

- Atmosphere Supplying Respirator: A respirator that supplies the wearer with breathing air from a source independent of the ambient air, including supplied air respirators (SAR) and self contained breathing apparatus (SCBA).

- Canister or Cartridge: Container with a filter, sorbent or catalyst, or a combination of these items, which removes specific contaminants from the air passed through the container.

- Chemical Cartridge: The type of absorption unit used with a respirator for removal of low concentrations of specific vapors and gases.

- Dust Mask: Negative pressure particulate respirator with a filter as an integral part of the facepiece composed of the filtering medium.

- Facepiece: That portion of a respirator that covers the wearer's nose and mouth in a half-mask facepiece, or the nose, mouth, and eyes in a full facepiece. It is designed to make a gas-tight or dust-tight fit with the face and includes the headbands, exhalation valves, and connections for air-purifying device, or respirable gas source, or both.
- Filter: Component used in respirators to remove solid or liquid aerosols from the inspired air. Also called an air purifying element.
- SCBA: Self Contained Breathing Apparatus - Used in chemical, biological, radiological, and nuclear (CBRN) environments.
- Tight Fitting Facepiece: A respiratory inlet covering forming a complete seal with the face or neck. Mouthpiece respirators aren't tight-fitting facepieces.

3.0 Scope

This policy applies to all city departments / agencies that have identified the need for respiratory protection associated with occupational respiratory hazards. This includes departments / agencies that have employees who may not normally have the need for use of respiratory protection, but in emergency situations may be asked to perform official job functions that have the need or potential need for respiratory protection. (i.e., Public Works Department; an employee may not have normal job tasks requiring respiratory protection, but in emergency responses may be required to use respiratory protection.)

The intent of this policy is to assist city departments in developing their own written Respiratory Protection Program. Careful attention was made to not include specific equipment requirements or recommendations, but simply supply the foundational guidelines to develop a sound and workable respiratory protection policy.

It is not the intent of this policy to identify specific PPE requirements for any city employee of any department / agency for controlling occupational respiratory hazards. PPE REQUIREMENTS ARE TASK AND HAZARD SPECIFIC, and therefore shall be established by each department / agency requiring use of respiratory protection respectively through a department / agency specific Respiratory Protection Program. This policy only establishes the guidelines for departments / agencies to develop and implement a Respiratory Protection Program. Each department / agency is encouraged to make amendments to expand their program to fit their specific requirements and individual department needs.

4.0 Responsibilities

Risk Management shall:

- a) When requested, provide technical guidance to department / agencies in the development of individual department Respiratory Protection Programs that meet guidelines of this policy.
- b) Develop a City and County of Denver Respirator Medical Evaluation Questionnaire.

- c) Identify a Physician or Licensed Health Care Professional (PLHCP) for medical evaluations. This evaluation shall be preformed by reviewing the “Respirator Medical Evaluation Questionnaire” provided by the Risk Management Department.

Department Heads shall:

- a) When required by this policy, ensure that a written Respiratory Protection Program is implemented and designate and identify a Respiratory Protection Program Administrator.

Program Administrators shall:

- a) Be knowledgeable as to all elements of the department’s program.
- b) Have a basic understanding of mandates concerning occupational respiratory protection.
- c) Assist Departmental Supervisors with a departmental inventory of all respiratory needs and the associated hazard(s).
- d) Where required, provide the information document for employees using respirators voluntarily but not required under this policy (Attachment One).
- e) Ensure compliance with this policy as well as the department Respiratory Protection Program.
- f) Be knowledgeable of applicable Federal, State, local, and professional respiratory protection mandates and regulations.
- g) Ensure the program is implemented in a consistent manner throughout the department.
- h) Ensure all affected employees are instructed and trained on the respiratory protection provided by the department.

Department Supervisor shall:

- a) With assistance from the Program Administrator conduct a departmental inventory of all respiratory needs and the associated hazard(s).
- b) Where required, ensure employees who choose to use a respirator voluntarily are given the information document for using respirators when not required under this policy (Attachment One).
- c) Ensure appropriate Respiratory PPE is provided and made available in the field according to their department’s program.
- d) Ensure affected employees are current on training requirements per their program on the proper use, care, and limitations of required respiratory PPE.
- e) Ensure defective, damaged, or expired equipment is immediately replaced.
- f) Ensure the appropriate and required Respiratory PPE is used in the field.

Affected Employees shall:

- a) Follow the requirements of the department programs.
- b) Attend required training sessions and pass required testing.
- c) Wear respiratory PPE as required, in accordance with instructions, training and as determined by a fit test.
- d) Only wear the type, style, and size of respirator for which they have been fit tested within the past year.
- e) Care for, inspect, clean, and maintain respiratory PPE as directed and inform supervisors of the need to repair or replace respiratory PPE.
- f) Advise their supervisors or the Program Administrator if they notice any signs or symptoms related to their ability to use a respirator.

- g) Advise their supervisors or the Program Administrator of changes in their physical condition that could affect respirator fit, such as changes in body weight, facial scarring, etc.
- h) Read and sign the information document if using respirators when not required under this policy (Attachment One).

5.0 Respiratory Program Components

5.1. Identification of Respiratory Hazards

The first critical step in developing a comprehensive Respiratory Protection Program is to identify the physical and health respiratory hazards that the employee may face while performing their required job functions. This “Risk Hazard Assessment” (See 65.4 Risk Assessment Policy) shall contain the following information:

- Date of the assessment
- Name of the person conducting the assessment
- Identification of the workplace evaluated
- Tasks, hazards, and controls

Each department / agency shall develop a Risk Hazard Assessments for all necessary job functions to determine the hazards and controls required for respiratory protection. Most risk hazard assessments are conducted on known job tasks with identifiable hazards under controlled or semi-controlled environments. But due to the nature of some disciplines of work conducted by city employees, comprehensive assessments are not always possible. Therefore, departments / agencies shall attempt to identify known hazards as well as anticipated hazards, and shall use professional standards and guidelines in identifying occupational respiratory hazards and recommended controls (i.e., NFPA standards for the fire service).

5.2. Respirator Selection

Within the department / agency respiratory program, each respirator that is selected on the basis of the respiratory hazard(s) to which a city employee is or can be exposed to shall be identified.

All respiratory protective equipment provided by the city shall be approved by the National Institute for Occupational Safety and Health (NIOSH) for the environment in which it is going to be used. Respirators shall be used in compliance with the conditions and limitations of their certifications.

5.3. Medical Evaluations

Departments / agencies shall ensure affected employees receive a post offer medical evaluation to determine the employee’s ability to use a respirator, before the employee is fit tested or required to use a respirator in the work place.

Medical evaluations shall be completed by the PLHCP identified by the Department of Risk Management. Medical evaluations shall consist of completion of a medical questionnaire reviewed by the PLHCP and any additional examinations required by the PLHCP to determine medical approval to wear respiratory protection equipment.

Departments / agencies shall provide the employee with an opportunity to complete the medical questionnaire during working hours and the opportunity to discuss the questionnaire and examination results with the PLHCP.

Departments / agencies shall ensure that a follow-up medical evaluations / examinations are made available for an employee whenever the PLHCP indicates the need for medical approval.

The PLHCP shall provide department / agency Program Administrators with written recommendations regarding the employee's ability to use a respirator. Any limitations on respirator use or denial of medical approval shall be submitted in writing.

Medical re-evaluations shall be offered if; an employee reports medical signs to his/her supervisor related to the ability to use a respirator, the PLHCP, Program Administrator or supervisor identifies changes in an employee's medical condition that may affect the employee's ability to wear a respirator, or workplace/tasks change that may result in a substantial increase in the physiological burden placed on the employee while wearing a respirator.

Department/Agencies that are required to follow 40 CFR 300.150, 311 and subsequently 29 CFR 1910.120 shall conform to medical clearances as outlined per the standard and employees job responsibilities. Specifically all employees who are or may be exposed to hazardous substances or health hazard at or above the established permissible exposure limit without regard to how many days the respirators were used and all designated member of a HAZMAT team.

Restricted Use – individuals may be limited to the type of respirator (i.e. SCBAs) or tasks performed (heavy manual labor while wearing a negative pressure respirator), as well as duration of tasks to be done (long work hours in a hot environment). The type of respirator that the person can use, as well as the type(s) that can not be worn, will be specified. Rarely an individual may not be able to wear any respirator.

5.4. Fit Testing

Each department shall provide a qualitative fit test to affected employees required to wear a tight-fitting respirator to include:

- a) The fit test is conducted with the same make, model, style, and size of respirator that would be used in that employee's job function. If multiple respirators are required for an employee within their job function, then multiple fit tests shall be conducted.
- b) The fit test is conducted after the initial medical evaluation and prior to first use of the respirator.
- c) The fit test is repeated at least annually thereafter.
- d) The fit test is repeated whenever an employee reports, or a visual observation by the PLHCP, the Program Administrator, or a supervisor notes a change in the employee's physical condition that could affect respirator fit. Such changes include, but are not limited to, facial scarring, dental changes, cosmetic surgery, change in body weight, or other changes of facial structure.

5.5. Procedures for Use of Respirators

Department / agency programs shall identify the procedures for the proper use of the respirators issued to each employee. These procedures shall include the requirements prohibiting conditions that may result in facepiece seal leakage, preventing employees from removing respirators in hazardous environments, taking actions to ensure continued effective respirator operation throughout the work shift, and establishing procedures for the use of respiratory in IDLH atmospheres or in interior structural firefighting situations.

5.6. Maintenance and Care of Respirators

Department / agency programs shall provide understanding for the cleaning, disinfecting, storage, inspection, and repair of respirators used by department personnel.

5.7. Supplied Air

Those department / agency programs requiring supplied air respirators shall comply with all applicable NFPA, NIOSH, ANSI and OSHA 1910.134(i) requirements.

5.8. Training

Department / agency programs shall identify the required comprehensive training on the required respirators issued. It will recur annually or more often if necessary.

The department program shall ensure that each affected 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 device;
- b) What the limitations and capabilities of the respirator are;
- c) How to use the respirator effectively in emergency situations, including situations in which the respirator malfunctions;
- d) How to inspect, put on and remove, use and check the seals of the respirator;
- e) What the procedures are for maintenance and storage of the respirator;
- f) How to recognize medical signs and symptoms that may limit or prevent the effective use of respirators

5.9. Program Evaluation and Recordkeeping

To ensure the continued effectiveness of the individual department's Respiratory Protection Program, the Program Administrator will evaluate the program at least annually. An evaluation will also be conducted when there is a policy change, equipment change or a factor introduced that could increase the airborne concentrations and / or contaminants of the employee exposure or potential exposure in the employee's job function.

The Program Administrator will be responsible for ensuring that proper records are kept for their department's program, to include;

- A current copy of the department's Respiratory Protection Program
- A current copy of the City and County's Respiratory Protection Policy

- Respiratory protection training records
- Fit test records that include:
 - ✓ Employee's name or identification;
 - ✓ Type of fit test;
 - ✓ Make, model, style and size of respirator tested;
 - ✓ Test results, including strip chart recordings where applicable;
- Medical evaluation reports from the PLHCP;
- Records of previous program evaluations.

6.0 Definitions:

Absorption:	In air sampling, the capture of a gas or vapor accomplished by passing an air stream containing the gas or vapor through a filtering device or substance.
Action Level:	A term used by OSHA and NIOSH to express the level of toxicant that requires medical surveillance, usually one half of the permissible exposure limit.
Activated Charcoal:	Charcoal is an amorphous form of carbon formed by burning wood, nutshells, animal bones, and other carbonaceous materials. Charcoal becomes activated by heating it with steam to 800-900 C. During treatment, a porous, submicroscopic internal structure is formed that gives it an extensive internal surface area. Activated charcoal is commonly used as a gas or vapor adsorbent in air-purifying respirators and as a solid sorbent in air sampling.
Administrative Controls:	Administrative changes in work schedules or procedures that reduce employee exposure to occupational hazards.
Aerosols:	Liquid droplets or solid particles dispersed in air that are of fine enough particle size (0.01-100 um) to remain so dispersed for a period of time.
Air:	The mixture of gases that surrounds the earth; its major components being 78.08% nitrogen, 20.95% oxygen, 9.3% argon, and .03% carbon dioxide. Humidity varies.
Air Monitoring:	The sampling for and measuring of pollutants in the air.
Assigned Protection Factor:	The level of respiratory protection expected for a respirator that is properly functioning, has been properly fitted and is worn by persons trained in its uses.

Breathing Zone:	Imaginary globe of two foot radius surrounding the head.
Contaminants:	Substances in the air that can cause immediate (acute) or long term (chronic) health problems.
Concentration:	Amount of contaminant in the air generally measured in parts per million (ppm) or milligrams per cubic meter (mg/m ³).
Employee Exposure:	Exposure to a concentration of an airborne contaminant that would occur if the employee were not using respiratory protection.
Engineering Controls:	Specialized equipment, process or practices that can reduce employee exposure to respiratory hazards.
Exposure:	Contact with a hazardous substance through inhalation, ingestion, absorption, or direct contact.
Fit Test:	Use of a protocol to qualitatively or quantitatively evaluate the fit of the respirator on an individual.
Fume:	Airborne particulate formed by the condensation of solid particles from the gaseous state. (E.g. metal fume emitted during welding).
High Efficiency Particulate Air (HEPA):	Filter that is at least 99.97% efficient in removing particles of 0.3u in diameter.
IDLH:	OSHA classification “Immediately Dangerous to Life and Health” for atmospheres that are immediately fatal.
NIOSH:	National Institute for Occupational Safety and Health. A federal agency which establishes minimum performance standards for respirators and approves respirators for various uses.
OSHA:	U.S. Occupational Safety and Health Administration.
PEL:	Permissible exposure limit – An exposure limit published and enforced by OSHA as a legal standard.
PLHCP:	Physician or other Licensed Health Care Professional identified by the policy to perform medical evaluations using an OSHA approved medical questionnaire or conduct an initial medical examination that obtains the same information as the medical questionnaire.

- PPE: Personal Protective Equipment. Any equipment used to protect an employee from a potential hazard, which includes respirators.
- TLV: Threshold Limit Value. A time-weighted average concentration under which most people can work consistently for eight hours a day, day after day, with no harmful effects. A table of these values and accompanying precautions is published annually by the American Conference of Governmental Industrial Hygienists.
- Vapor: The gaseous form of substances that are normally in the solid or liquid state.

Attachment One

(Mandatory) Information for Employees Using Respirators When Not Required Under the Standard

Respirators are an effective method of protection against designated hazards when properly selected and worn. 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.

PRINT NAME

SIGNATURE

DATE

City and County of Denver Respirator Questionnaire

Respirator Medical Evaluation Questionnaire (Mandatory)

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

To the Candidate/Employee:

Can you read (circle one): Yes No

The City must allow you to answer this questionnaire at a time and place that is convenient to you. To maintain your confidentiality, the City must not look at or review your answers, and the City 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 candidate/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 number: _____

10. Has the City/Commissioner 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-face piece 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 candidate/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 have 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 (except when you had a cold): | 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 interferes with your job: | Yes | No |
| d) In the past two 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?
- | | | |
|--------------------------------------|-----|----|
| a) Breathing or lung problems: | Yes | No |
| b) Heart trouble: | Yes | No |
| c) Blood pressure: | Yes | No |
| d) Seizures (fits): | Yes | No |
8. Has your wearing a respirator caused 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 that occurs only when you use the respirator: | Yes | No |
| d) Unusual 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 candidate/employee who may be selected to use either a full-face piece respirator or a self-contained breathing apparatus (SCBA) or other types of respirators.

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) Difficulty 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 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 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: _____

The following section is for existing employees only.

As an employee of the City & County of Denver will you be using the following equipment?

10. Will you be using any of the following items with your respirator(s):
- a) HEPA Filters:
 - b) Canisters (for example, gas masks):
 - c) Cartridges:
11. How often are you expected to use the respirator(s)
- a) Escape only (no rescue):
 - b) Emergency rescue only:
 - c) Less than 5 hours per week:
 - d) Less than 2 hours per day:
 - e) 2-4 hours per day:

f) Over 4 hours per day:

12. During the period you are using the respirator(s), is your work effort:

a) Light (less than 200kcal per hour):

If "yes," how long does this period last during the average shift: _____ hrs. _____ mins.

Examples of 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 (200-300 kcal per hour):

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):

If "yes," how long does this period last during the average shift: _____ hrs. _____ mins.

Examples of heavy work are lifting a heavy load (about 50lbs.) 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:

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

14. Will you be working under hot conditions (temperature exceeding 77 deg. F):

15. Will you be working under humid conditions:

16. Describe the work you'll be doing while you're using you 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 it, for each toxic substance you'll be exposed to when you're using your respirator(s):

Name of the first toxic substance: _____

Duration of exposure per shift: _____

Name of second toxic substance: _____

Estimated maximum exposure level per shift: _____

Duration of exposure per shift: _____

Name of 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):
