



<b>NUMBER: S01</b>
<b>TITLE: Respiratory Protection Program</b>
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## **1.0 Purpose**

The purpose of this respiratory protection program is to establish guidelines for using respiratory protection to protect the health of Mount Snow Ski Resort employees from airborne respiratory hazards. Mount Snow Ski Resort employees will use respirators when engineering and administrative controls are unable to reduce air contaminants below their Threshold Limit Value (TLV)

## **2.0 Scope and Applicability**

The human respiratory system is the most direct route of material entry into the human body. Toxic materials can enter the body through the lungs and present serious health risks. This Respiratory Protection Program affects any employee who, as a result of his or her job duties, is exposed to air contaminants that exceed the TLV or are immediately dangerous to life and health (IDLH). This program presents guidelines for the use of respiratory protection and includes provisions for training, the need for hazard assessments, respirator selection guidelines, purchasing, medical requirements, fit testing, record keeping, and respirator care. This program also details the areas of responsibility for Vice Presidents and Directors of Departments, Supervisors, competent persons, and employees.

## **3.0 Reference**

This document utilizes references from the following sources:

- The Occupational Safety and Health Standards for General Industry (29 CFR 1910.251 – 1910.257).
- The Occupational Safety and Health Standards for Construction (29 CFR 1926.350 – 1926.354).
- The Vermont Occupational Safety and Health Standards for General Industry (1910.1000).

## **4.0 Policy Statement**

It is the policy of Mount Snow Ski Resort to provide a place of employment free from recognized hazards that cause or are likely to cause death or serious physical harm to employees or the public. When respiratory hazards exist in the workplace that cannot be eliminated by engineering or administrative controls, safe work practices, employee training regarding respiratory protection and the use of personal protective equipment will be implemented. Mount Snow Ski Resort employees will only use NIOSH approved respiratory protection in the performance of assigned work.

## **5.0 Definitions**

**Administrative Control:** A method to reduce employee exposure to a contaminant such as job rotation or limiting the length of time an employee is permitted to perform a

specific task. Employee exposures for each contaminant shall be documented by air sampling data as part of the administrative control and hazard assessment procedure.

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

**Approved:** Evaluated and listed as permissible by NIOSH, for the respirator's intended use.

**Aerosol:** Particles, solids or liquids, which are suspended in the air.

**Atmosphere-Supplying Respirator:** A respirator that supplies the respirator user with breathing air from a source independent of the ambient atmosphere, and includes supplied-air respirators (SARs) and self-contained breathing apparatus (SCBA) units.

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

**Competent Person:** One who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has the authority to take prompt corrective measures to eliminate them. This person is responsible for conducting or arranging for air monitoring when there is suspicion of air contaminants.

**Contaminant:** A harmful, irritating, or nuisance airborne material.

**Dust:** Are created when solid material breaks down and gives off fine particles that float in the air before settling by gravity. Dusts are produced by operations such as grinding, crushing, drilling, blasting, and milling.

**Employee Exposure:** Exposure to a concentration of an airborne contaminant that would occur if the employee were not using respiratory protection.

**End-of-Service-Life Indicator (ESLI):** A system that warns the respirator user of the approach of the end of adequate respiratory protection.

**Engineering Control:** A preventive measure under taken to control the work place conditions such as enclosing or containing the contaminant, exhausting the contaminant or removing the contaminant prior to work.

**Exposure Limit:** The maximum allowable concentration of a contaminant in the air to which an individual may be exposed. These may be time-weighted averages (TWA), excursion limits, ceiling limits, permissible exposure limits (PEL) or short-term exposure limits (STEL).

**Filtering Facepiece (dust mask):** A negative pressure particulate respirator with a filter as an integral part of the facepiece or with the entire facepiece composed of the filtering medium.

**Fit Factor:** A quantitative estimate of the fit of a particular respirator to a specific individual, and typically estimates the ratio of the concentration of a substance in ambient air to its concentration inside the respirator when worn.

**Fit Test:** The use of a protocol to qualitatively or quantitatively evaluate the fit of a respirator on an individual. (See definitions of Qualitative fit test and Quantitative fit test.

**Fume:** Created when solid materials vaporize under high heat. The metal vapor cools and condenses into an extremely small particle, with particle size generally less than one micrometer in diameter. Fumes can come from operations such as welding, smelting, and pouring of molten metal.

**Gases:** Substances that are similar to air in their ability to diffuse or spread freely throughout a container or area. Examples include oxygen, carbon monoxide and carbon dioxide, nitrogen, and helium.

**Hazard Assessment:** The evaluation of a job task for identifiable hazards including air monitoring for contaminants performed by a qualified person (Safety Professional, Competent Person, Industrial Hygienist, etc.).

**High Efficiency Particulate Air (HEPA) Filter:** A filter that is at least 99.97% efficient in removing particles of 0.3 micrometers in diameter. The equivalent NIOSH 42 CFR Part 84 particulate filters are the N100, R100, and P100 filters.

**Immediately Dangerous to Life or Health (IDLH):** An atmosphere that poses an immediate threat to life, would cause irreversible adverse health effects, or would impair an individual's ability to self escape from a dangerous atmosphere.

**Mists:** Particles formed from liquid materials by atomization and condensation processes. For example, mists can be created by spraying, plating, mixing, and cleaning operations.

**Negative Pressure Respirator (tight fitting):** A respirator in which the air pressure inside the facepiece is negative during inhalation with respect to the ambient air pressure outside the respirator.

**Oxygen Deficient Atmosphere:** An atmosphere with an oxygen content below 19.5% by volume.

**Permissible Exposure Limit (PEL):** Established limits for contaminants that include:

- Eight hour time weighted average (TWA)
- Short Term Exposure Limits (STEL)
- Ceiling (C)

- Excursion Limits (EL)

**Physician or other Licensed Health Care Professional (PLHCP):** An individual whose legally permitted scope of practice (i.e., license, registration, or certification) allows him or her to independently provide, or be delegated the responsibility to provide, some or all of the health care services required.

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

**Quantitative Fit Test (QNFT):** An assessment of the adequacy of respirator fit by numerically measuring the amount of leakage into the respirator.

**Service Life:** The period of time that a respirator, filter or other respiratory equipment provides adequate protection to the wearer.

**Threshold Limit Value:** The threshold limit value is expressed as a time weighted average airborne concentration over a normal 8-hour workday and 40-hour work week. This value represents the amount time most workers can be exposed without adverse effects.

**User Seal Check:** An action conducted by the respirator user to determine if the respirator is properly sealed to the face.

**Vapors:** The gaseous state of substances that are either liquids or solids at room temperature. They are formed when solids or liquids evaporate. Gasoline is an example of a liquid that evaporates easily, producing gasoline vapors. Other examples are paint thinners and degreaser solvents.

## **6.0 General Provisions**

This section details the provisions of this respiratory protection program. Each provision is discussed in a separate subsection. These provisions are:

- Training
- Hazard Assessment
- Respirator Selection
- Purchasing
- Medical Monitoring
- Fit Testing
- Record keeping
- Respirator Care

### **6.1 Training**

Vice Presidents or Department Directors will ensure that training is provided to each employee prior to a task/assignment that requires respirator use. The training will cover:

- Review of Mount Snow Ski Resort's Respiratory Protection Program

- Respiratory hazards encountered at Mount Snow Ski Resort and their health effects
- Why we use respirators
- Proper selection and use of respirators
- Limitations of respirators
- Respirator donning and user seal check
- Maintenance and care
- Fit testing
- Inspection
- Medical signs and symptoms limiting the effective use of respirators
- Medical monitoring program
- Use in emergency situations

Employees will be trained at least annually. Employees must demonstrate their understanding of the topics covered in the training through hands on exercises. To document employee training on respiratory protection, a training attendance sheet has been created. The attendance sheet is attached as Appendix A.

A written copy of this program will be available to all employees. It is recommended that a copy of the program reside in every department.

## **6.2 Hazard Assessment**

A competent person shall perform a hazard assessment to determine if the contaminant can be controlled or eliminated through the use of engineering or administrative controls. When engineering or administrative controls will not reduce an employee exposure to an acceptable level, the need for PPE is then exercised. Hazard assessments may include air monitoring documentation and analysis, process information, historical data, and work practices relative to the type of contaminant. Based on this assessment, the proper type of respirator and cartridge shall be selected to control the exposure.

The TLV of an air contaminant does not have to be exceeded for an employee to use a respirator. The employee may request the use of a respirator because of a nuisance exposure or for personal reasons. These employees should participate in voluntary respirator usage, authorized and documented by the VP or Director of the department. Details on voluntary respirator usage can be found in section 10.0.

## **6.3 Respirator Selection**

The types of respirators used at Mount Snow Ski Resort include:

- Disposable or single use type.
- Negative pressure air purifying.

The types of filters used on the respirators include:

- N, P, R type filters

Only the National Institute of Occupational Safety and Health (NIOSH) approved type filters shall be used by Mount Snow Ski Resort to protect employees from airborne contaminants. The NIOSH approval will be marked on the filter.

The selection of N, R, or P series filters depends on the presence or absence of oil particles, as follows:

- If no oil particles are present in the work environment, use a filter of any series (i.e., N, R, or P series)
- If oil particles (e.g., cutting fluids, lubricants, etc.) are present use a R- or P-series. Note: N- filters cannot be used if oil particles are present.
- If oil particles are present and the filter is to be used for more than one workshift, use only a P- series filter

**Note:** To help you remember the filter series, use the following guide:

N for **N**ot resistant to oil,  
 R for **R**esistant to oil  
 P for oil **P**roof

Selection of filter efficiency (i.e., 95%, 99%, 99.97%) depends on how much filter leakage can be accepted. Higher filter efficiency means lower filter leakage. It is recommended that Mount Snow Ski Resort employees use the highest filter efficiency whenever possible.

These efficiency levels will be identified according to the following designations:

- Filters with the N95, R95, or P95 designations will be certified as having a minimum efficiency of 95%.
- Filters with the N99, R99, or P99 designations will be certified as having a minimum efficiency of 99%.
- Filters with the N100, R100, or P100 designations will be certified as having a minimum efficiency of 99.97%.
- NIOSH approved filters are assigned standard colors to provide consistency among manufacturers. This cartridge color guide provides a summary of contaminants and the color assigned to each filter type:

<b>Atmospheric contaminants to be protected against</b>	<b>Colors assigned*</b>
Acid gases	White
Hydro cyanic acid gas	White with 1/2-inch green strip completely around the canister near the bottom
Chlorine gas	White with 1/2- inch yellow stripe completely around the canister near the bottom
Organic vapors	Black
Ammonia gas	Green

Acid gases and ammonia gas	Green with 1/2-inch white stripe completely around the canister near the bottom
Carbon monoxide	Blue
Acid gases and organic vapors	Yellow
Hydro cyanic acid gas and chloropicrin vapor	Yellow with 1/2-inch blue stripe completely around the canister near the bottom
Acid gases, organic vapors, and ammonia gases	Brown
Radioactive materials, excepting tritium and noble gases	Purple (Magenta)
Particulates (dusts, fumes, mists, fogs, or smokes) in combination with any of the above gases or vapors	Canister color for contaminant, as designated above, with 1/2-inch gray stripe completely around the canister near the top
All of the above atmospheric contaminants	Red with 1/2-inch gray stripe around the canister near the top
*Gray shall 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 will need to refer to the canister label to determine the degree of protection the canister will afford.	

#### **6.4 Purchasing**

Only NIOSH approved respirators and filters shall be purchased and kept in stock. For many of Mount Snow Ski Resort's applications a 1/2 mask air-purifying respirator will be the appropriate respirator to use (see section 6.6, Photograph A). Respirator selection shall be based on the hazard assessment and the employee exposure assessment defined in section 6.2. Unapproved respirators shall be removed from inventory.

#### **6.5 Medical Monitoring**

Employees who are required to wear respirators are not permitted to wear a respirator until a Physician or Other Licensed Health Care Professional (PLHCP) has determined that they are medically able to do so. All employee required to wear a respirator shall complete a medical questionnaire. The completed questionnaire will be provided to the PLHCP. The Physician's evaluation will either clear the individual for respirator use or state that the employee may not wear a respirator.

Any employee refusing to complete the medical evaluation will not be allowed to work in an area or on a task requiring respirator use and may be subject to discipline at the discretion of the VP or Director of the department. Follow-up or additional medical evaluations may be required as determined by the PLHCP. Mount Snow Ski Resort will provide additional evaluations if:

1. An employee reports medical signs or symptoms that are related to his/her ability to use a respirator;
2. A PLHCP informs the Director of the department that an employee needs to be reevaluated;
3. Observations made during the fit testing or program evaluation indicate a need for employee reevaluation;
4. A change occurs in workplace conditions that may result in a substantial increase in the physiological burden placed on an employee;

## **6.6 Fit Testing**

Fit testing is required for employees that are required to wear tight fitting face-piece type respirators. The employee must be fit tested with the exact make, model, and size of respirator that will be used in the workplace. Fit testing may not be done until employees are cleared from respirator usage by a PLHCP.

Employees are not permitted to wear a tight fitting respirator if they have any condition that prevents them from achieving a good face seal such as: sideburns, beards, mustaches, or dental work that affects the seal of the respirator. Clean-shaven skin must be in contact with all respirator sealing surfaces, even mild growth whiskers may interfere with this seal. Fit testing of either a qualitative fit test (QLFT) or quantitative fit test (QNFT) will be done annually and also when there are changes in the employees physical condition that could affect the fit (i.e., significant weight loss or gain, facial scarring). Each employee has to pass either a QLFT or QNFT. A QLFT is a pass/fail fit test to measure the individual's response to the test agent and a QNFT is numerically measuring the amount of leakage into the respirator.

### **Seal checks of the respirator:**

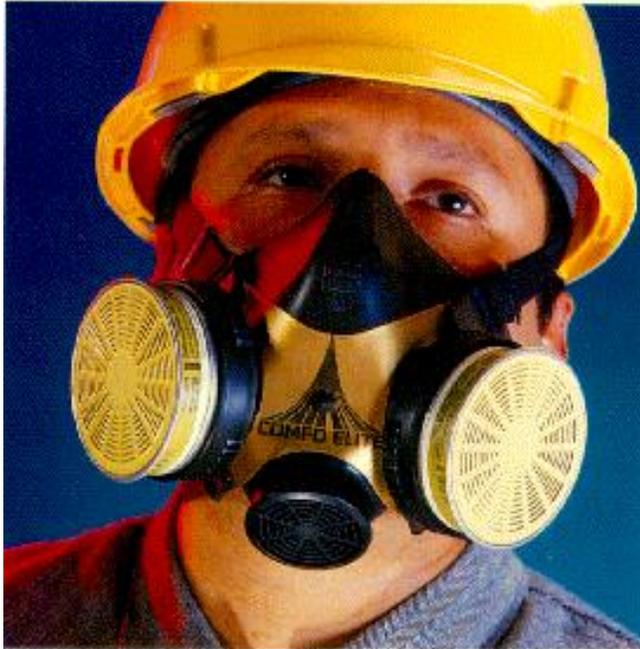
The individual who uses a tight-fitting respirator is to perform a user seal check to ensure that an adequate seal is achieved each time the respirator is put on. Both the positive and negative pressure checks listed below, or the respirator manufacturer's recommended user seal check method shall be used. User seal checks are not substitutes for a QLFT or QNFT. The respirator user shall perform a seal check each time the respirator is donned.

#### **A. Positive pressure seal check**

Close off the exhalation valve with your palm and exhale gently into the facepiece. The seal check 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. (See photograph C on page ?).

#### **B. Negative pressure seal check**

Close off the inlet opening of the canister or cartridge(s) by covering with the palm of the hand(s). Inhale gently so that the facepiece collapses slightly, and hold the breath for ten seconds. 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. (See photo D on page ?)



**A.** Half-mask Air Purifying Respirator



**B.** Respirator Components



C. Positive Pressure Seal Check



D. Negative Pressure Seal Check

## **6.7 Record keeping**

Records shall be maintained by the Department Manager on each employee who participates in the respiratory protection program or in voluntary respirator usage. A sample medical questionnaire (Appendix B) and sample physician's evaluation form (Appendix C) are included for employee reference. The completed medical questionnaire is confidential and should remain at the physician's office or with the employee. A physician's evaluation concerning the employee's ability to wear a respirator will be issued by the physician to the Manager. The physician's evaluation and fit testing records (Appendix D) will be kept at the employee's primary workplace.

## **6.8 Respirator Care**

Mount Snow Ski Resort employees are responsible for maintaining their respirator, which includes cleaning the respirator, changing the filters or cartridges, and inspection. Employees will take care of their respirators as follows:

### **Inspection:**

The employee will inspect the respirator prior to each use and check for proper fit and condition. The use of a defective respirator is not permitted. If a defective respirator is found during inspection, it must be repaired with manufacturer parts or returned to a supervisor for replacement. Worn or deteriorated parts will be replaced prior to use. Respirators are to be worn properly and maintained at all times in order to ensure they function properly.

Before each use the respirator will be inspected for the following:

1. Check for worn or frayed straps.
2. Look for wear or damage on the seal of the facepiece.
3. Be sure all parts are tight.
4. Check rubber and plastic parts for flexibility.
5. Valves should be clean and seated perfectly.
6. Be sure the filters or cartridges are the right kind of the atmosphere in which work is to be done.
7. Review entire respirator for cleanliness and missing parts. (See Photograph B on page ?.)

### **Change Schedule:**

Employees wearing air-purifying respirators for protection against particulates shall change the filter on their respirator when they first begin to experience difficulty breathing. Some cartridges are equipped with an End-of-Service-Life Indicator (ESLI) that warns the user of the end of adequate respiratory protection.

### **Cleaning Procedure:**

Respirators will be cleaned on a daily basis (or after each use if not used daily). Each employee shall clean their own respirator. When cleaning a respirator, remove filters, cartridges, valve assemblies, and any other detachable parts. Clean and dry each part of the respirator and inspect it carefully to be sure it is in good condition before reassembling. Follow the manufacturer's instructions for cleaning and disinfecting the respirator. Generally, a mild detergent and soft bristled brush or cloth is used for cleaning. Rinse the respirator thoroughly in clean, warm water. Rinsing is extremely important because the residue of the cleaning agent may damage the respirator or cause skin irritation the next time the respirator is worn. Use a soft, lint-free cloth to dry the respirator or let air dry on a soft, lint-free cloth in a clean environment. Be sure all parts are thoroughly dried before reassembling the respirator.

**Repair:**

During cleaning and maintenance, respirators that do not pass inspection will be removed from service and will be discarded or repaired. Repair of the respirator must be done with parts designed for the respirator in accordance with the manufacturer's instructions. No attempt will be made to replace components or make adjustments, modifications, or repairs beyond the manufacturer's recommendations.

**Storage Procedure:**

The respirator should be placed in the storage area in such a way that no part it will be stretched bent or compressed. Do not put anything on top of it that will affect its shape. Respirators stored incorrectly can easily become distorted and develop leaks. The respirator and cartridges must be stored in separate airtight containers to prevent contamination. Store the respirator where it will be protected from the following elements:

- Physical damage
- Sunlight
- Extreme heat
- Dust
- Extreme cold
- Moisture
- Damaging chemicals

Failure to properly care for and maintain your respirator can jeopardize the respirator's effectiveness to protect against the airborne hazard.

## **7.0 Specific Responsibilities**

### **7.1 VP and Department Directors**

Vice Presidents and Department Directors are responsible for ensuring that adequate funds are available and budgeted for the purchase of respiratory protection equipment and related supplies. They will also be responsible for identifying the employees affected by this respiratory protection program and that those employees have received medical clearance from a PLHCP before being assigned to operations where a respirator is required. Vice Presidents and Department Directors will obtain and coordinate the required training for the affected employees and will also ensure record keeping compliance with this safety program.

### **7.2 Supervisors**

Supervisors will not allow any employee who has not received the required training or medical evaluation to perform any of the tasks or activities requiring respiratory protection. They will ensure that respirators are properly worn and maintained. Supervisors will be responsible for communicating appropriate needs to the Vice President or Department Director.

### **7.3 Competent Person**

A competent person shall be designated to be responsible for conducting, or arranging for, air monitoring where there is known or suspected air contamination. The competent person can be a Vice President or Department Director, Supervisor, or employee who has the training and knowledge to perform hazard assessments, workplace evaluations, recommended exposure controls and have the authority to take prompt corrective action.

### **7.4 Employees**

Employees shall comply with all applicable guidelines contained in this safety program. They will maintain and clean the respirator assigned to them and properly store the respirator when not in use. Employees will also ensure their respirator has a proper fit and seal.

## **8.0 Audit and Review**

### **8.1 Items Subject to and Frequency of Audit and Review**

Vice Presidents and Department Directors shall review employee compliance with this program at least annually and at any time a work task changes or pattern develops that may affect the respiratory protection of the employees. A training record must be completed and documented for each training session attended by an employee. The

training record should be kept by the Department Manager. This training record is an item that is subject to audit and review by any labor regulatory agency.

When this program is updated, all previous versions shall be considered superceded and shall be destroyed. The revised copy will be distributed to the Vice Presidents and Department Directors with a revision date noted on the program.

## **9.0 Personnel Actions**

### **9.1 Discipline**

As a condition of employment, all employees at Mount Snow Ski Resort are required to participate actively in safety programs and follow established health and safety-related policies, procedures, instructions, and/or rules. Disciplinary action, in some instances up to and including dismissal, will be taken in cases where it is determined that disregard for safety and health has occurred.

## **10.0 Voluntary Respirator Usage**

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 TLV, to provide an additional level of comfort and protection for employees. However, if a respirator is used improperly or not kept clean, the respirator itself can become a hazard to the employee. Employees wearing respirators to avoid exposures as part of a voluntary use need to take the same precautions as if enrolled in the Mount Snow Ski Resort Respiratory Protection Program.

Employees should consider the following:

1. Read and understand all instructions provided by the manufacturer on use, maintenance, cleaning and care, and warnings regarding the respirators limitations.
2. Choose a NIOSH approved respirator and filters/cartridges that are intended for use to protect against the contaminant of concern.
3. Do not wear a respirator into atmospheres containing contaminants for which your respirator is not designed to protect against.
4. Keep track of your respirator so that you don't mistakenly use someone else's.
5. Participate in Mount Snow Ski Resort's fit testing procedures.
6. Obtain a physician's evaluation indicating that you are able to wear a respirator and perform the work that you are assigned.
7. Participate in training, maintenance, and sanitation of your respirator.



**Appendix B: Medical Questionnaire – Sample Format**

NAME: \_\_\_\_\_

To the employee:

Can you read (circle one): Yes No

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).

Today's date: \_\_\_\_\_

Your name: \_\_\_\_\_

Your age (to nearest year): \_\_\_\_\_ Sex (circle one): Male Female

Your height: \_\_\_\_\_ ft. \_\_\_\_\_ in. Your weight: \_\_\_\_\_ lbs.

Your job title: \_\_\_\_\_

A phone number where you can be reached by the health care professional who reviews this questionnaire (include the Area Code): \_(\_\_\_\_\_)\_\_\_\_\_

The best time to phone you at this number: \_\_\_\_\_

Has your employer told you how to contact the health care professional who will review this questionnaire (circle one): Yes No

Check the type of respirator you will use (you can check more than one category):

- a. \_\_\_\_\_ N, R, or P disposable respirator (filter-mask, non-cartridge type only).
- b. \_\_\_\_\_ Other type (for example, half- or full-face type, powered-air purifying, supplied-air, self- contained breathing apparatus).

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 reaction that interfere with your breathing: | Yes No |
| d. Claustrophobia (fear of closed-in-places):            | Yes No |
| e. Trouble smelling odors:                               | Yes No |

Have you ever had any of the following pulmonary or lung problems?

- |  |        |
|--|--------|
| a. Asbestos:   | 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:                                       | 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 disease:

- |  |        |
|--|--------|
| 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. 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-face 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

**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
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:

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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: \_\_\_\_\_

List any second jobs or side businesses you have: \_\_\_\_\_

List your previous occupations: \_\_\_\_\_

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: | Yes No |
|-----------|--------|

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

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

- |              |        |
|--------------|--------|
| b. Moderate: | Yes No |
|--------------|--------|

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

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

- |           |        |
|-----------|--------|
| c. Heavy: | 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 the respirator: Yes No

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

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

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

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

a. Name of the first toxic substance \_\_\_\_\_

Estimated maximum exposure level per shift: \_\_\_\_\_

Duration of exposure per shift: \_\_\_\_\_

b. Name of the second toxic substance: \_\_\_\_\_

Estimated maximum exposure level per shift: \_\_\_\_\_

Duration of exposure per shift: \_\_\_\_\_

c. Name of the third toxic substance: \_\_\_\_\_

Estimated maximum exposure level per shift: \_\_\_\_\_

Duration of exposure per shift: \_\_\_\_\_

19. The name of any other toxic substances that you'll be exposed to while using your respirator:

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20. 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):

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Appendix C: Physician's Evaluation – Sample Format

Class approved:

- I. No restrictions on respirator use
- II. Some specific use restrictions (see comments)
- III. No respirator use permitted

Comments: \_\_\_\_\_

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\_\_\_\_\_  
Physician Name (Please Type or Print)

\_\_\_\_\_  
Physician's Signature

\_\_\_\_\_  
Date

**Appendix D: Mount Snow Ski Resort Respirator Fit Test Form**

Employee: \_\_\_\_\_ Date: \_\_\_\_\_

Department: \_\_\_\_\_ Supervisor: \_\_\_\_\_

Manufacturer \_\_\_\_\_ Model \_\_\_\_\_ Size: Sm. Med. Lrg. \_\_\_\_\_

**Conditions Which Could Affect Respirator Fit:**

Clean Shaven

1-2 Day Beard Growth

Over 2 Day Growth

Mustache

None

Facial Scar

Dentures Absent

Glasses

Other: \_\_\_\_\_

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**FIT CHECK (Quantitative):**

Negative Pressure ..... Pass Fail

Positive Pressure ..... Pass Fail

**FIT TEST (Qualitative) - (Only One Test Is Required):**

Isoamyl Acetate      Pass Fail

Irritant Smoke      Pass Fail

Sweetener      Pass Fail

Comments: \_\_\_\_\_  
\_\_\_\_\_

Test Conducted By: \_\_\_\_\_ Date: \_\_\_\_\_

**Employee Acknowledgment Of Test Results:**

Employee Signature: \_\_\_\_\_ Date: \_\_\_\_\_