[C_Officialname]

# Respiratory Protection Program

Effective Date: [Effective_Date]
Revision #:

## Reference Standard

Occupational Safety and Health Administration, Subpart I, 29 CFR 1910.134 Respiratory Protection

## Purpose

This procedure establishes minimum procedures for determining safe use considerations for respiratory protection in our facility.

## Scope

This procedure applies to all of our company employees, all contractors and vendors performing work on company property, and all other individuals who are visiting or have business with our company.

## Responsibilities

Management is responsible for development and review of this program. Management is also responsible for appropriate employee training.

Management and supervisors are responsible for enforcement of this program.

Employees must comply with all procedures outlined in this policy.

Contractors and vendors must comply with all procedures outlined in this policy.

## Definitions

**Contractor**: a non-company employee being paid to perform work in our facility.

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

**Fit Test**: a procedure that can be used to help determine the effectiveness of a respirator's fit to the individual face. There are two types of fit tests:

- Qualitative: a pass/fail test that relies on the individual's response to a test agent; and
- Quantitative: a numerical measure of respirator leakage

**IDLH** (Immediately Dangerous to Life or Health): an atmosphere that possesses an immediate threat to life, an irreversible adverse health effect or would impair the ability to escape from the atmosphere.

**Respirator:** any disposable or reusable, device that covers a person's breathing zone for the purpose of removing airborne contaminants.

Prepared By: Date: Approved By: Date:

**SCBA**: Self-Contained Breathing Apparatus.

**Vendor**: A non-company employee being paid to perform a service in our facility.

## Procedure

### Respirator Use

Respirators will only be used to control airborne contaminants when engineering and administrative controls are not feasible.

### Respiratory Protection Program

Our facility has established a Respiratory Protection Program for individuals who are required to wear respirators. This program includes the following:

- Procedures for selecting respirators;
- Medical evaluation for respirator users;
- Fit test procedures for tight fitting respirators;
- Procedures for proper use of respirators; and
- Procedures for maintaining and storing respirators.

### Respirator Selection

Our facility will do the following for all respirators:

1. Evaluate all potential respiratory hazards and provide an estimate of the exposure (see Appendix A for a list of these locations);
2. Where it is not possible to quantify employee exposure an area will be classified as an IDLH atmosphere and protection will be determined by that level of protection;
3. Use only NIOSH certified respirators within their use limitations; and
4. Select respirators from a sufficient number of models and sizes to ensure proper fit and acceptance on the part of the respirator user.

### IDLH Atmospheres

Respirators used in IDLH atmospheres must be either full face piece pressure demand SCBA with a rated service life of 30 minutes or full face piece pressure demand supplied air with an auxiliary self-contained air supply. Escape only units must be NIOSH certified for the contaminant in the IDLH area.

### Non-IDLH Atmospheres

1. Respirators must be appropriate for the contaminants in the area; and
2. Respirators must be:
   - Atmosphere-supplying or air-purifying equipped with an end-of-service-life indicator; or
   - On a change schedule that takes into account the respirator's cartridge/canister and its exposure to contaminants.

### Particulates

Use respirators such as High Efficiency Particulate Air (HEPA) or a particulate filter certified by NIOSH. See Appendix E for Particulate Respirator Selection.

### Medical Evaluation

1. Our company has a designated licensed health care provider (LHCP);
2. The LHCP will perform medical evaluations using a medical questionnaire or an initial medical examination that obtains the same information as the medical questionnaire (see Appendix C );
3. This evaluation will be administered confidentially, at no cost to the employee, during the employee's normal working hours. The employee will have an opportunity to discuss the questionnaire and examination results with the LHCP;
4. The program administrator will provide the LHCP with the following supplemental

information:
(a) The type and weight of the respirator to be used by the employee;
(b) The duration and frequency of respirator use (including use for rescue and escape);
(c) The expected physical work effort;
(d) Additional protective clothing and equipment to be worn;
(e) Temperature and humidity extremes that may be encountered;
(f) A copy of this written respirator protection program; and
(g) A copy of the respiratory protection standard (29 CFR 1910.134);

5. Additional medical evaluations may be necessary as determined by the LHCP;
6. A decision about when the next medical re-evaluation will occur will be made by the LHCP;
7. The LHCP will provide the program administrator with a written opinion on the employee's ability to use the respirator. This opinion will be kept on file; and
8. These medical records will be kept for 30 years after the last day of employment, as required by OSHA standard 29 CFR 1910.1020. See Appendix D for information required for employees using particulate filtering facepiece respirators not required under the standard.

**Fit Testing**

1. The program administrator is responsible for fit testing employees. (see Appendix F for a fit test record);
2. Prior to initial use, and **annually** thereafter all employees assigned respirators will be fit tested using one of the methods described in the section on fit testing appropriate for the type of respirator used;
3. Quantitative fit testing procedure must be used for all tight fitting facepieces requiring fit factors greater than 100. Qualitative fit testing procedures (using either irritant smoke, isoamyl acetate, saccharine or Bitrex) can be used for fit testing tight fitting facepieces with fit factors of 100 or less;
4. The record of the most recent fit test will be maintained in the employees respirator program file and will contain:

- The name of the employee tested;
- The type of fit test performed;
- The specific make, model, style and size of respirator tested;
- The date of the test; and
- The pass/fail results for qualitative fit tests (or the fit factor and strip chart recording or other recording of the test results for quantitative fit testing); and

5. Additional fit testing will be conducted whenever visual observations of changes in the employee's physical condition, which could affect respirator fit, are indicated. This could include facial scarring, dental changes, cosmetic surgery or an obvious change in body weight, and could be reported by either:

- The employee;
- The health care provider (PLHCP);
- The supervisor; or
- The program administrator.

**Use of Respirators**

The program administrator will develop specific written operating procedures for the use of respirators. Standard requirements for respirator users are:

- Any employee having any condition that interferes with the face to facepiece seal, including any facial hair that comes between the sealing surface of the facepiece and the face is prohibited from wearing a respirator;
- Any employee having any condition that interferes with valve function, including facial hair, is prohibited from wearing a respirator;
- All personal protective equipment including corrective glasses or goggles must be worn in a manner that does not interfere with the seal of the facepiece to the face of the employee;
- Employees must perform a user seal check each time they put on a tight fitting respirator (see Appendix B-1);

- Supervisors must monitor all employees using respirators for the degree of employee exposure and stress. Whenever there is a change in working conditions which will affect respirator effectiveness, the use of respirators will be re-evaluated;
- In order to prevent eye or skin irritation associated with respirator use, employees must leave the work area to wash their faces and respirator facepieces;
- If employees detect vapor or gas breakthrough, or changes in breathing resistance, they must leave the work area to replace the filters or cartridges;
- If employee detects leakage of the facepiece, they must leave the work area and only re-enter it with a properly working respirator;
- If the employee detects vapor or gas breakthrough, changes in breathing resistance, or leakage of the facepiece, the respirator must be repaired or replaced before the employee can return to the work area; and
- If the respirator end of service life indicator (ESLI) indicates the need to change the filter or cartridge, employees will leave the work area to replace it.

**Maintenance and Care**

1. The program administrator is responsible for ensuring that respirators are cleaned, disinfected, stored, inspected and repaired;
2. Employees with defective respirators should take them to the program administrator for inspection and repair, or for issuing a new respirator;
3. Employees will be provided with respirators that are clean, sanitary and in good working order;
4. Respirators issued to individual employees will be cleaned and disinfected as often as necessary to remain in a sanitary condition. This will be according to the procedure described by the manufacturer or in Appendix B-2;
5. Respirators used in fit testing, and respirators used by more than one employee, will be cleaned and disinfected before being worn by different people. This will be according to the procedure described by the manufacturer or the procedure in Appendix B-2 section on respirator cleaning;
6. Respirators will be stored to protect them from damage, contamination, sunlight, extreme temperatures, excessive moisture, and damaging chemicals;
7. Respirators will be packed or stored to prevent deformation of the facepiece and exhalation valve;
8. Employees will inspect their respirators before each use and during cleaning. If any defect is found, the respirator will be immediately removed from service and either discarded or repaired prior to use. Inspections will include:
    - A check of respirator function;
    - A test of the tightness of connections;
    - A visual inspection of the conditions of various parts including the facepiece, head straps, valves, connecting tube and cartridges, canisters or filters, and any other part that may affect the performance of the respirator;
    - A check of elastomeric parts for pliability and signs of deterioration; and
    - A check that the label and color coding indicating NIOSH approval is not removed and remains legible on all filters, cartridges and canisters;
9. Repairs or adjustments to respirators will be made only by people appropriately trained to perform such operations;
10. Repairs or adjustments will only use the respirator manufacturer's NIOSH approved parts designed for the respirator;
11. Repairs to respirators will be made only according to the manufacturer's recommendations and specifications for the type and extent of repairs to be made; and
12. Reducing and admission valves, regulators and alarms must be adjusted or repaired only by the manufacturer or a technician trained by the manufacturer.

**Program Evaluation**

1. The program administrator will evaluate this program as necessary to ensure that the program is being properly implemented and to consult with employees to ensure that they are using respirators properly. This evaluation will be performed at least annually;
2. Employees who use respirators will be consulted to determine their views on program effectiveness and any problems with the program;
3. The respiratory protection program administrator will ensure that all problems identified during this assessment are corrected;
4. Initial factors to be assessed during each evaluation include:
   (a) Respirator fit, including the ability to use the respirator without interfering with effective workplace performance;
   (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; and
   (e) Any other aspect of this program.

## Training

1. The program administrator will train employees as indicated in this section;
2. Employees who are expected to use respirators will be trained:
   (a) Prior to initial use;
   (b) Annually;
   (c) When changes in the workplace or the type of respirator require additional training;
   (d) When the employee has not retained the required understanding or skill as indicated by inadequacies in the employee's knowledge or use of the respirator; and
   (e) Whenever any other situation arises, which indicates that additional training is necessary, to ensure the safe use of respirators;
3. The training will be understandable to the employee, provided at no cost to the employee, and be comprehensive;
4. Training on the hazards of chemicals will be done according to the chemical hazard communication program (complying with 29 CFR 1910.1200);
5. Employees will be trained on the proper use of respirators, including putting them on and removing them, any limitations on their use and maintenance, and any other knowledge required for them to complete their tasks as assigned in this program;
6. Employees will be trained until they can demonstrate their knowledge of all of the following:
   (a) Why the respirator is necessary;
   (b) How improper fit, usage, or maintenance can compromise the protective effect of the respirator;
   (c) The limitations and capabilities of the respirator;
   (d) How to use the respirator effectively in emergency situations including situations in which the respirator malfunctions;
   (e) How to inspect, put on and remove, use and check the seals of the respirator;
   (f) The procedures for maintenance and storage of the respirator;
   (g) How to recognize medical signs and symptoms that may limit or prevent the effective use of respirators; and
   (h) The general requirements of this program and the OSHA respiratory protection standard.

## Revision History Record:

| Revision Number | Section | Revised By | Description |
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| 0 | NA | NA | Original document. |
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# Respirator Use Area

| AREA | CONTAMINANT | RESPIRATOR |
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# User Seal Check Procedure

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

*1) Facepiece Positive and/or Negative Pressure Checks*

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

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

*2) Manufacturer-Recommended User Seal Check Procedures*

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

# Respirator Cleaning Procedures

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

**Procedures for Cleaning Respirators**

1) Remove filters, cartridges, or canisters. Disassemble facepieces by removing speaking diaphragms, demand and pressure-demand valve assemblies, hoses or any components recommended by the manufacturer. Discard or repair any defective parts;
2) Wash components in warm (43 deg. C [110 deg. F] maximum) water with a mild detergent or with a cleaner recommended by the manufacturer. A stiff bristle (not wire) brush may be used to facilitate the removal of dirt;
3) Rinse components thoroughly in clean, warm (43 deg. C [110 deg. F] maximum), preferably running water. Drain;
4) When the cleaner used does not contain a disinfecting agent, respirator components should be immersed for two minutes in one of the following:
    a) Hypochlorite solution (50 ppm of chlorine) made by adding approximately one milliliter of laundry bleach to one liter of water at 43 deg. C (110 deg. F);
    b) Aqueous solution of iodine (50 ppm iodine) made by adding approximately 0.8 milliliters of tincture of iodine (6-8 grams ammonium and/or potassium iodide/100 cc of 45% alcohol) to one liter of water at 43 deg. C (110 deg. F); or
    c) Other commercially available cleansers of equivalent disinfectant quality when used as directed, if their use is recommended or approved by the respirator manufacturer;
5) Rinse components thoroughly in clean, warm (43 deg. C [110 deg. F] maximum), preferably running water. Drain. The importance of thorough rinsing cannot be overemphasized. Detergents or disinfectants that dry on facepieces may result in dermatitis. In addition, some disinfectants may cause deterioration of rubber or corrosion of metal parts if not completely removed.
6) Components should be hand-dried with a clean lint-free cloth or air-dried.
7) Reassemble facepiece, replacing filters, cartridges, and canisters where necessary.
8) Test the respirator to ensure that all components work properly.

# Medical Questionnaire

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

**To the employee:**
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).**

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 your employer told you how to contact the health care professional who will review this questionnaire (circle one): Yes/No
11. Check the type of respirator you will use (you can check more than one category):
    a. _____ N, R, or P disposable respirator (filter-mask, non-cartridge type only).
    b. _____ Other type (for example, half- or full-facepiece type, powered-air purifying, supplied-air, self-contained breathing apparatus).
12. Have you worn a respirator (circle one)? Yes/No

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

    _____

**Part A. Section 2. (Mandatory) Questions 1 through 9 below must be answered by every employee who has been selected to use any type of respirator (please circle "yes" or "no").**

1) Do you *currently* smoke tobacco, or have you smoked tobacco in the last month? Yes/No
2) Have you *ever had* any of the following conditions?
    a) Seizures (fits): Yes/No
    b) Diabetes (sugar disease): Yes/No
    c) Allergic reactions that interfere with your breathing: Yes/No

d) Claustrophobia (fear of closed-in places): Yes/No
e) Trouble smelling odors: Yes/No

3) Have you *ever had* any of the following pulmonary or lung problems?
   a) Asbestosis: Yes/No
   b) Asthma: Yes/No
   c) Chronic bronchitis: Yes/No
   d) Emphysema: Yes/No
   e) Pneumonia: Yes/No
   f) Tuberculosis: Yes/No
   g) Silicosis: Yes/No
   h) Pneumothorax (collapsed lung): Yes/No
   i) Lung cancer: Yes/No
   j) Broken ribs: Yes/No
   k) Any chest injuries or surgeries: Yes/No
   l) Any other lung problem that you've been told about: Yes/No
4) Do you *currently* have any of the following symptoms of pulmonary or lung illness?
   a. Shortness of breath: Yes/No
   b. Shortness of breath when walking fast on level ground or walking up a slight hill or incline: Yes/No
   c. Shortness of breath when walking with other people at an ordinary pace on level ground: Yes/No
   d. Have to stop for breath when walking at your own pace on level ground: Yes/No
   e. Shortness of breath when washing or dressing yourself: Yes/No
   f. Shortness of breath that interferes with your job: Yes/No
   g. Coughing that produces phlegm (thick sputum): Yes/No
   h. Coughing that wakes you early in the morning: Yes/No
   i. Coughing that occurs mostly when you are lying down: Yes/No
   j. Coughing up blood in the last month: Yes/No
   k. Wheezing: Yes/No
   l. Wheezing that interferes with your job: Yes/No
   m. Chest pain when you breathe deeply: Yes/No
   n. Any other symptoms that you think may be related to lung problems: Yes/No
5) Have you *ever had* any of the following cardiovascular or heart problems?
   a) Heart attack: Yes/No
   b) Stroke: Yes/No
   c) Angina: Yes/No
   d) Heart failure: Yes/No
   e) Swelling in your legs or feet (not caused by walking): Yes/No
   f) Heart arrhythmia (heart beating irregularly): Yes/No
   g) High blood pressure: Yes/No
   h) Any other heart problem that you've been told about: Yes/No

6) Have you *ever had* any of the following cardiovascular or heart symptoms?
   a) Frequent pain or tightness in your chest: Yes/No
   b) Pain or tightness in your chest during physical activity: Yes/No
   c) Pain or tightness in your chest that 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-facepiece respirator or a self-contained breathing apparatus (SCBA). For employees who have been selected to use other types of respirators, answering these questions is voluntary.**

10) Have you *ever lost* vision in either eye (temporarily or permanently): Yes/No
11) Do you *currently* have any of the following vision problems?
   a) Wear contact lenses: Yes/No
   b) Wear glasses: Yes/No
   c) Color blind: Yes/No
   d) Any other eye or vision problem: Yes/No
12) Have you *ever had* an injury to your ears, including a broken eardrum? 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
   If "yes," do you have feelings of dizziness, shortness of breath, pounding in your chest or other symptoms when you're working under these conditions? Yes/No

2) At work or at home, have you ever been exposed to hazardous solvents, hazardous airborne chemicals (e.g., gases, fumes, or dust), or have you come into skin contact with hazardous chemicals: Yes/No
   If "yes," name the chemicals if you know them: _____
   _____

3) Have you ever worked with any of the materials, or under any of the conditions, listed below?

   a) Asbestos: Yes/No

   b) Silica (*e.g.*, in sandblasting): Yes/No

   c) Tungsten/cobalt (e.g., grinding or welding this material): Yes/No

   d) Beryllium: Yes/No

   e) Aluminum: Yes/No

   f) Coal (for example, mining): Yes/No

   g) Iron: Yes/No

   h) Tin: Yes/No

   i) Dusty environments: Yes/No

   j) Any other hazardous exposures: Yes/No
      If "yes," describe these exposures:

   _____

   _____

4) List any second jobs or side businesses you have: _____

   _____

5) List your previous occupations: _____

   _____

6) List your current and previous hobbies: _____

   _____

7) Have you been in the military services? Yes/No
   If "yes," were you exposed to biological or chemical agents (either in training or combat)? Yes/No

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

8) Other than medications for breathing and lung problems, heart trouble, blood pressure, and seizures mentioned earlier in this questionnaire, are you taking any other medications for any reason (including over-the-counter medications)? Yes/No
If "yes," name the medications if you know them: _____

10) Will you be using any of the following items with your respirator(s)?

a) HEPA Filters: Yes/No

b) Canisters (for example, gas masks): Yes/No

c) Cartridges: Yes/No

11) How often are you expected to use the respirator(s) (circle "yes" or "no" for all answers that apply to you)?

a) Escape only (no rescue): Yes/No

b) Emergency rescue only: Yes/No

c) Less than 5 hours *per week:* Yes/No

d) Less than 2 hours *per day:* Yes/No

e) 2 to 4 hours per day: Yes/No

f) Over 4 hours per day: Yes/No

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

*a)* *Light* (less than 200 kcal per hour): Yes/No
If "yes," how long does this period last during the average shift:
_____hrs._____mins.
Examples of a light work effort are *sitting* while writing, typing, drafting, or performing light assembly work; or *standing* while operating a drill press (1-3 lbs.) or controlling machines.

*b)* *Moderate* (200 to 350 kcal per hour): Yes/No
If "yes," how long does this period last during the average shift:_____hrs._____mins.
Examples of moderate work effort are *sitting* while nailing or filing; *driving* a truck or bus in urban traffic; *standing* while drilling, nailing, performing assembly work, or transferring a moderate load (about 35 lbs.) at trunk level; *walking* on a level surface about 2 mph or down a 5-degree grade about 3 mph; or *pushing* a wheelbarrow with a heavy load (about 100 lbs.) on a level surface.

*c)* *Heavy* (above 350 kcal per hour): Yes/No
If "yes," how long does this period last during the average shift:
_____hrs._____mins.
Examples of heavy work are *lifting* a heavy load (about 50 lbs.) from the floor to your waist or shoulder; working on a loading dock; *shoveling; standing* while bricklaying or chipping castings; *walking* up an 8-degree grade about 2 mph; climbing stairs with a heavy load (about 50 lbs.).

13) Will you be wearing protective clothing and/or equipment (other than the respirator) when you're using your respirator? Yes/No
If "yes," describe this protective clothing and/or equipment: _____

_____

14) Will you be working under hot conditions (temperature exceeding 77 degrees F)? Yes/No

15) Will you be working under humid conditions? Yes/No

16) Describe the work you'll be doing while you're using your respirator(s):

_____

_____

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

_____

_____

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

Name of the first toxic substance: _____

Estimated maximum exposure level per shift: _____

Duration of exposure per shift: _____

Name of the second toxic substance: _____

Estimated maximum exposure level per shift: _____

Duration of exposure per shift: _____

Name of the third toxic substance: _____

Estimated maximum exposure level per shift: _____

Duration of exposure per shift: _____

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

_____

_____

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

_____

_____

# 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, (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.

I have read the instructional statement above, understand the content and have had the opportunity to have my questions answered.

Employee Signature: _____

Date: _____

# Particulate Respirator Selection

The filter packaging of Part 84 particulate respirators contain certification numbers of the form TC-84A-XXXX. Users can identify three types of filters with three efficiencies each, as follows:

- Respirators with N100, N99, and N95 filters (99.97%, 99%, and 95% efficient filters) may be used for any solid or non-oil containing particulate contaminant.
- Respirators with R100, R99, and R95 filters (99.97%, 99%, and 95% efficient filters) may be used for any particulate contaminant. If used for an oil containing particulate, a one-shift use limit applies.
- Respirators with P100, P99, and P95 filters (99.97%, 99%, and 95% efficient filters) may be used for any particulate contaminant. If oil particles are present and the filter is to be used for more than one shift, use only P-series.

No particle size limits apply to respirators with Part 84 filters. Protection for the user is based on the efficiency of the filter and the PEL of the contaminant, usually determined by an industrial hygienist

To select the correct respirator for protection against particulates, the following conditions must be known:

- The identity and concentration of the particulates in the workplace air
- The OSHA or MSHA permissible exposure limit (PEL), the NIOSH recommended exposure limit (REL), or other occupational exposure limit for the contaminant
- The hazard ratio (HR) (i.e., the airborne particulate concentration divided by the exposure limit)
- The Assigned Protection Factor (APF) for the class of respirator (the APF should be greater than the (HR)
- The immediately dangerous to life or health (IDLH) concentration, including oxygen deficiency [NIOSH 1994]
- Any service life information available for combination cartridges or canisters

Multiplying the occupational exposure limit by the APF for a respirator gives the maximum workplace concentration in which that respirator can be used. For example, if the commonly accepted APF for a half-mask respirator is 10 and the PEL is $5mg/m^3$, then 50 milligrams/cubic meter is the highest workplace concentration in which a half-mask respirator can be used against that contaminant. If the workplace concentration is greater that $50mg/m^3$, a more protective respirator (with a higher APF) should be used. In no case should an air-purifying respirator be used in IDLH concentrations, or in areas that are oxygen deficient.

# Employee Fit Test Record

**Employee Name:** _____

**Date of Fit Test:** _____ **Conducted By:** _____

**Respirator**: **Make:** _____

**Model:** _____

**Style:** _____

**Size:** _____

**Type of Test:** Qualitative (QLFT)

* Isoamyl Acetate
* Saccharin
* Bitrex
* Irritant Smoke
* Other: _____

- ❑ Passed
- ❑ Failed

Quantitative (QNFT)

*

Comments:

_____

_____

_____

_____

I agree with this assessment: _____ _____

Employee Signature Date