



# University of New Haven

## POLICIES AND PROCEDURES

**Policy Title:**

### Respiratory Protection Program

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**Responsible Office:** Department of Public Safety

**Responsible Official:** Associate VP of Public Safety & Administrative Services

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## 1.0. Purpose

The purpose of this Respiratory Protection Program is to establish safe work practices to protect University of New Haven (University) employees from harm which could be caused by atmospheric contaminants in the workplace.

The University will adhere to the guidelines in this program to ensure employee safety and to ensure compliance with the OSHA Respiratory Protection Standard, 29 CFR 1910.134.

This written respiratory protection program will be implemented when through air monitoring air contaminant levels exceed the published permissible exposure limit, when the University otherwise requires the use of respirators and when respirators (other than filtering facepieces) are being voluntarily worn by employees.

The objectives of the program are to:

- Evaluate specific job descriptions and individual tasks for atmospheric hazards;
- Where atmospheric hazards exist, reduce the exposures to below the OSHA permissible exposure limit (PEL) through the use of administrative controls, engineering controls and/or alterations in work practices when feasible;
- Where work practice changes and engineering controls fail or are not feasible, reduce employee exposures to below the PEL through the use of personal respiratory protective devices (respirators);
- Select and provide the right types of respirators to affected employees for the substances and levels of exposure involved based on atmospheric hazard assessments;
- Medically clear, fit-test and train employees who are to use respirators prior to use of such equipment;
- Provide respirators, training, and medical evaluations at no cost to the employee; and
- Comply with all provisions of the OSHA Respiratory Protection Standard 29 CFR 1910.134.

## 1.1 Review

This program will be reviewed at least annually and as necessary based on ongoing observations of potential exposure to atmospheric hazards. Circumstances which would justify review of this program include:

- Changes in processes or operations that would introduce new atmospheric hazards;
- Changes in work practices;

- Changes in applicable regulations; or
- Observed discrepancies or inadequacies of the program.

## **1.2 General Policy**

All the elements of this program are considered University policy and may be enforced as such. Failure on the part of employees to follow the policies and safety requirements of this program may result in disciplinary action.

## **2.0 Roles and Responsibilities**

The following individuals have these responsibilities with regard to this respiratory protection program.

### **2.1 Associate Vice President of Facilities**

- Serves as the program administrator and has overall responsibility for facility staff compliance with the Respiratory Protection Program.

### **2.2 Associate Vice President of Public Safety & Administrative Services**

- Support and assist the Director of Facilities, the Manager of Facility Operations and the Custodial Manager on the full implementation of this safety program.
- Update the program as necessary to protect employee health and safety.
- Ensure compliance with state and federal regulations.
- Work with a third-party contractor to make recommendations concerning appropriate respiratory protection equipment.
- Conduct an annual evaluation of the program.
- With the assistance of a third-party contractor, consult with affected employees and their supervisors regularly to ensure that the program is effective and identifies and corrects any deficiencies within the program.

### **2.3 Director of Facilities**

- Schedule medical examinations for affected employees.
- Assure that initial training and annual retraining has occurred.
- Schedule initial and annual fit-testing for all affected employees.
- Ensure that employees adhere to the requirements of the program.
- Ensure that respirators are available and that there is a sufficient supply of spare parts.
- Ensure that respirators are maintained in clean usable condition.

- Maintain all records required by the program.

## **2.4 Custodial Manager**

- Ensure that employees assigned to their work areas are using respirators when and where they are required.
- Ensure that respirators are not removed by employees until the employees have left the area of contamination or until contaminants have been effectively removed from the work area.
- Work closely with the Director of Facilities to enforce and ensure effective and compliant use of this program.
- Share any problems or concerns with the program with Director of Facilities.

## **2.5 Manager of Facility Operations**

- Ensure that employees assigned to their work areas are using respirators when and where they are required.
- Ensure that respirators are not removed by employees until the employees have left the area of contamination or until contaminants have been effectively removed from the work area.
- Work closely with the Director of Facilities to enforce and ensure effective and compliant use of this program.
- Share any problems or concerns with the program with the Director of Facilities.

## **2.6 Affected Employees**

- Wear respirators when and where they are required.
- Follow the requirements for respirator use detailed in this program and the manufacturer's instruction manual (on file in the Associate Vice President of Public Safety & Administrative Service's office).
- Care for and maintain the respirators in accordance with this program.
- Notify their supervisor if the respirator does not fit properly or is damaged.
- Notify their supervisor if they have any concerns about the program.
- Check each respirator prior to donning for visual defects that may inhibit the respirators effectiveness.
- Stay clean shaven while wearing a University issued respirator.
- If a respirator malfunction occurs during use, leave the hazard area immediately and report the problem to Director of Facilities and/or supervisor.
- Only use respirators that have been approved or authorized for use by the University.

Changes or modifications made to the respirator may void the approval and adversely affect the performance of the device.

### 3.0 Hazard Evaluations

The Associate Vice President with the assistance of a third-party contractor will conduct a respiratory hazard evaluation for each operation, process or work area where airborne contaminants may be present in routine operations or during an emergency; see Appendix A for a hazard evaluation template. The hazard evaluations include the following:

- Identification of all hazardous substances used in the workplace;
- A review of work processes to determine where potential to these hazardous substances may occur which may include surveying the workplace, reviewing process records and talking with employees and supervisors; and
- If necessary, exposure monitoring to quantify potential hazardous exposures.

### 3.1 Occupational Airborne Exposure Limits

Hazard evaluations compare the actual or reasonably estimated air contaminant levels with airborne exposure limits established by governmental and non-governmental organizations. The University will reduce exposures so that employees are not exposed to airborne exposure levels above limits established by OSHA, and unless infeasible, also below those limits established by ACGIH and NIOSH.

Definitions for these limits are as follows:

- **OSHA PEL:** This refers to the permissible exposure level set by OSHA. Commonly expressed in parts per million, this represents the maximum time-weighted average concentration of an air contaminant to which an employee can be exposed for 8 hours per day based on a 40-hour work week without adverse effect. If an atmosphere exceeds the PEL, respiratory protection is mandatory. OSHA PELs are published in 29 CFR 1910.1000.
- **NIOSH REL:** The National Institute for Occupational Safety and Health (NIOSH) is a governmental research institute responsible for recommending health and safety standards. NIOSH has developed recommended 10-hour maximum time-weighted average concentration limits known as RELs. RELs are based on more current scientific research than are the OSHA PELs, which were promulgated in 1971. RELs are listed in the NIOSH Pocket Guide to Chemical Hazards, which presents key information and hazard data for 677 chemicals or substance groupings found in the work environment. It includes all the chemicals for which NIOSH has recommended exposure limits and also lists the OSHA PELs. The Pocket Guide is accessible on line at the Centers for Disease Control (CDC) website.
- **TLV-TWA:** This refers to the current threshold limit values established by the American Conference of Governmental Industrial Hygienists (ACGIH). It is similar to the OSHA PEL

and NIOSH REL in that it is an 8-hour time-weighted average exposure limit. TLVs are similar to RELs in that they are recommended exposure limits based on recent scientific research.

- **TLV-STEL:** Also, from the ACGIH, refers to the short-term exposure limit (TLV-STEL), which is the maximum time-weighted average concentration of an air contaminant to which an employee can be exposed for a 15-minute period without adverse effect. NIOSH also lists STELs in their Pocket Guide and are indicated by a “ST” designation.
- **TLV-C:** Known as the ACGIH ceiling limit, this is the concentration of an air contaminant that should not be exceeded at any time during the workday. NIOSH also lists ceiling limits in their Pocket Guide and are indicated by a “C” designation.
- **IDLH:** This concentration is considered immediately dangerous to life and health. It is the maximum concentration of an air contaminant from which one could escape within 30 minutes without a respirator and not suffer any irreversible health effects. If an atmosphere exceeds IDLH, a supplied air respirator (SAR) with escape air supply or a self-contained breathing apparatus (SCBA) is mandatory.
- **Action Level:** The airborne exposure level at which certain chemical-specific OSHA standards take effect. Such chemicals for which OSHA has developed individual standards include asbestos, lead, ethylene oxide, and formaldehyde. Employee exposure above the action level is considered “occupational exposure”.

### **3.2 Hierarchy of Controls**

In the control of occupational diseases caused by breathing air contaminated with harmful dusts, fogs, fumes, mists, gases, smokes, sprays or vapors, the primary objective is to prevent atmospheric contamination. It is the determination of the University that filtering face-pieces (N-95 dust mask) will be required to be worn by all personnel during the cleaning of mold.

Conditions outside of work of cleaning mold at the University will be evaluated on a case by case basis as they arise and the hazard evaluation form in Appendix A will be used.

## **4.0 Respirator Types**

### **4.1 Air-Purifying Respirators (APRs)**

An air-purifying respirator (APR) is a respirator with an air-purifying filter, cartridge or canister that removes specific air contaminants by passing ambient air through the air-purifying element. APRs most commonly come in either half-face or full-face configurations that provide a tight-fitting face seal. Ambient air is then drawn passively (negative pressure) through the capture media. At the University, N95 APRs are used for the cleaning of mold.

#### ***4.1.1 Limitations***



Since APRs provide only the minimum respiratory protection, there are many restrictions associated with their use for performing work in hazardous atmospheres. Some of these restrictions are that:

- The ambient air must be breathable, with the exception of the contaminant present;
- There must be normal levels of oxygen and other components of air that are normally found in the atmosphere;
- All airborne contaminants must be identified and monitored to ensure that their concentrations are below the IDLH value established by NIOSH, and below the maximum use concentration (MUC) for the type of respirator being worn; and
- The amount of time a person can use a respirator without changing the filter is a function of the filter loading if the contaminant is a particulate or by breakthrough if the contaminant is a gas or vapor.

#### *4.1.2 Identification of Filters, Cartridges and Canisters*

The University does not currently use respirators that require filter, cartridges or canisters.

#### *4.1.3 Cartridge Change Schedule*

Currently the University only supplies N95 respirators to affected employees. All N95 respirators shall be disposed of after use and never should an N95 respirator be reused for any reason.

## **5.0 Respirator Selection**

Respirators will be provided by the University when such equipment is necessary to protect the health of the employee. The University will provide the respirators which are applicable and suitable for the purpose intended.

The University will select and provide an appropriate respirator based on the respiratory hazard(s) to which the worker is exposed and workplace and user factors that affect respirator performance and reliability. Only NIOSH-certified respirators will be selected for use by employees and the respirator will be used in compliance with the conditions of its certification.

As described in the Hazard Evaluation section of this program, the University will identify and evaluate the respiratory hazard(s) in the workplace; this evaluation will include a reasonable estimate of employee exposures to respiratory hazard(s) and an identification of the contaminant's chemical state and physical form.

The University will select respirators from a sufficient number of respirator models and sizes so that the respirator is acceptable to, and correctly fits, the user.

### **5.1 IDLH Conditions**

All oxygen-deficient atmospheres will be considered IDLH.

### **5.2 Non-IDLH Conditions**

For atmospheres that are not IDLH, the University will provide a respirator that is adequate to protect the health of the employee and ensure compliance with all other OSHA statutory and regulatory requirements, under routine and reasonably foreseeable emergency situations. The respirator selected will be appropriate for the chemical state and physical form of the contaminant.

## **6.0 Medical Evaluation**

### **6.1 Purpose**

The University will provide a medical evaluation to determine the employee's ability to wear a respirator before the employee is fit-tested or required to use the respirator at the facility.

### **6.2 Medical Evaluation Procedures**

#### ***6.2.1 Initial Questionnaire/Examination***

The University will identify a physician or other licensed health care professional (PLHCP) who is the PLHCP to perform medical evaluations using a medical questionnaire or an initial medical examination that obtains the same information as the medical questionnaire (see Appendix B of this program).

The medical questionnaire will be administered confidentially during the employee's normal working hours or at a time and place convenient to the employee. The medical questionnaire will be administered in a manner that ensures that the employee understands its content. The University will provide the employee with an opportunity to discuss the questionnaire with the PLHCP. The University may discontinue an employee's medical evaluation when the employee is no longer required to use a respirator.

### ***6.2.2 Information Provided to the PLHCP***

The following information will be provided to the PLHCP before the PLHCP makes a recommendation concerning an employee's ability to use a respirator:

- The type and weight of the respirator to be used by the employee;
- The duration and frequency of respirator use (including use for rescue and escape);
- The expected physical work effort;
- Additional protective clothing and equipment to be worn; and
- Temperature and humidity extremes that may be encountered.

The University will also provide the PLHCP with a copy of this written respiratory protection program and a copy of OSHA's Respiratory Protection Standard upon request.

When a PLHCP is replaced, the University will ensure that the new PLHCP obtains this information, either by providing the documents directly to the PLHCP or having the documents transferred from the former PLHCP to the new PLHCP.

### ***6.2.3 Follow-Up Medical Examinations***

The University at the direction of the PLHCP will ensure that a follow-up medical examination is provided for an employee whose initial medical examination demonstrates the need for additional examination. The follow-up medical examination will include any medical tests (such as a pulmonary function test), consultations or diagnostic procedures that the PLHCP deems necessary to make a final determination.

The examinations will be administered confidentially during the employee's normal working hours or at a time and place convenient to the employee. The University will provide the employee with an opportunity to discuss the examination results with the PLHCP.

### ***6.2.4 Medical Determination***

In determining the employee's ability to use a respirator, the University will obtain a written recommendation regarding the employee's ability to use the respirator from the PLHCP. The recommendation will provide only the following information:

- Any limitations on respirator use related to the medical condition of the employee, or relating to the workplace conditions in which the respirator will be used, including whether or not the employee is medically able to use the respirator;
- the need, if any, for follow-up medical evaluations; and

- a statement that the PLHCP has provided the employee with a copy of the PLHCP's written recommendation.

If the respirator is a negative pressure respirator and the PLHCP finds a medical condition that may place the employee's health at increased risk if the respirator is used, this identified employee will be deemed unfit to wear a respirator.

### ***6.2.5 Additional Medical Evaluations***

The University will provide additional medical evaluations in at least the following circumstances:

- An employee reports medical signs or symptoms that are related to ability to use a respirator;
- A PLHCP, supervisor or the respirator program administrator informs the employer that an employee needs to be reevaluated;
- Information from the respiratory protection program, including observations made during fit testing and program evaluation, indicates a need for employee reevaluation; or
- A change occurs in workplace conditions (e.g., physical work effort, protective clothing, and temperature) that may result in a substantial increase in the physiological burden placed on an employee.

## **7.0 Fit-Testing**

Before an employee may be required to use any respirator with a negative or positive pressure tight-fitting face piece, the employee will be fit-tested with the same make, model, style and size of respirator that will be used. The University will ensure that employees using a tight-fitting face piece respirator pass an appropriate qualitative fit test (QLFT) or quantitative fit test (QNFT) in accordance with the OSHA requirements (§1910.134(f)). This section specifies the kinds of fit tests allowed, the procedures for conducting them and how the results of the fit tests will be used.

### **7.1 When Fit-Testing Is Performed**

The University will ensure that an employee using a tight-fitting face piece respirator is fit tested in the following circumstances:

- Prior to initial use of the respirator,
- Whenever a different respirator face piece (size, style, model or make) is used, and
- At least annually thereafter.

An additional fit test will be performed whenever the employee reports, or the employer, PLHCP or

supervisor makes visual observations of changes in the employee's physical condition that could affect respirator fit. Such conditions include, but are not limited to, facial scarring, dental changes, cosmetic surgery or an obvious change in body weight.

If after passing a QLFT or QNFT, the employee subsequently notifies the employer, supervisor or PLHCP that the fit of the respirator is unacceptable, the employee must be given a reasonable opportunity to select a different respirator face piece and to be retested.

## **7.2 Qualitative (QLFT) vs. Quantitative (QNFT) Fit-Testing**

The fit test will be administered using an OSHA-accepted QLFT or QNFT protocol. The OSHA-accepted QLFT and QNFT protocols and procedures are contained in Appendix A of the OSHA Respiratory Protection Standard.

### **7.2.1 Qualitative Fit Testing Steps**

Respiratory fit testing should comply with the requirements of OSHA 190.134 (Appendix A: Fit Testing Procedures – Mandatory). The following procedures shall be administered to ensure an adequate fitting respirator:

(1) Normal breathing

(2) Deep breathing

(3) Turning head side to side

(4) Moving head up and down

(5) Talking. The subject shall talk out loud slowly and loud enough so as to be heard clearly by the test conductor. The subject can read from a prepared text such as the Rainbow Passage, count backward from 100.

(6) Grimace. The test subject shall grimace by smiling or frowning. (This applies only to QNFT testing; it is not performed for QLFT)

(7) Bending over. The test subject shall bend at the waist as if he/she were to touch his/her toes. Jogging in place shall be substituted for this exercise in those test environments such as shroud type QNFT or QLFT units that do not permit bending over at the waist.

(8) Normal breathing. Same as exercise (1).

Each test exercise shall be performed for one minute except for the grimace exercise which shall be performed for 15 seconds. The test subject shall be questioned by the test conductor regarding the comfort of the respirator upon completion of the protocol. If it has become unacceptable,

another model of respirator shall be tried. The respirator shall not be adjusted once the fit test exercises begin. Any adjustment voids the test, and the fit test must be repeated.

## **8.0 Use of Respirators**

The University will establish and implement procedures for the proper use of respirators. The following section details requirements including prohibited conditions that may result in face piece 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 respirators in IDLH atmospheres.

### **8.1 Prohibited Conditions**

The University prohibits the growth of any facial hair or wearing of any jewelry that interferes with the face-to-face piece fit of the respirator or interferes with valve function. The Director of Facilities and appropriate supervisors will be alert for the presence of facial hair (more than one day's growth) that comes between the sealing surface of the respirator and the face as well as any other conditions that could result in face piece seal leakage or interfere with valve function of tight-fitting respirators, such as the presence of facial scars, the wearing of jewelry or the use of headgear that projects under the face piece seal.

Corrective glasses or goggles or other personal protective equipment (such as face shields, protective clothing, baseball caps and helmets) must not interfere with the seal of the face piece to the face of the user. If employees wear other safety equipment with their respirators, the employee must pass an appropriate fit test while wearing the equipment to determine if it interferes with the seal.

### **8.2 User-Seal Check**

The employee should be evaluated by either the Director of Facilities or appropriate supervisors to determine if the user seal check procedures are being performed each time the respirator is donned. The procedure used must be one of those described in Appendix B-1 of the OSHA standard (see Appendix C of this program).

### **8.3 Continuing Respirator Effectiveness**

Appropriate surveillance will be maintained of work area conditions and degree of employee exposure or stress. When there is a change in work area conditions or degree of employee exposure

or stress that may affect respirator effectiveness, the University will reevaluate the continued effectiveness of the respirator.

The University will ensure that employees leave the respirator use area in the following situations:

- To wash their faces and respirator face pieces as necessary to prevent eye or skin irritation associated with respirator use; or
- If they detect breakthrough, changes in breathing resistance or leakage of the face piece; or
- To replace the respirator.

If the employee detects breakthrough, changes in breathing resistance or leakage of the face piece, the University will replace the respirator before allowing the employee to return to the work area.

#### **8.4 Voluntary Use of Respirators**

Where respirator use is not required by OSHA, the University may provide respirators at the request of employees or permit employees to use their own respirators, if the University determines that such respirator use will not in itself create a hazard. If the University determines that any voluntary respirator use is permissible, respirator users will be provided with the information contained in Appendix D of the OSHA Respiratory Protection Standard ("Information for Employees Using Respirators When Not Required Under the Standard"). (See Appendix D of this program)

In addition, the University will implement all elements of this program necessary to ensure that any employee using a respirator voluntarily is medically able to use that respirator, and that the respirator is cleaned, stored and maintained so that its use does not present a health hazard to the user.

### **9.0 Maintenance and Care**

The University will train respirator wearers on how to properly wear and inspect their respirators.

#### **9.1 Cleaning and Disinfecting**

The University will provide each respirator user with a respirator that is clean, sanitary and in good working order. N95 respirators are not to be cleaned or disinfected at the University. After each use, the respirator shall be disposed of in the regular trash.

#### **9.2 Storage**

The University will ensure that respirators are stored as follows:

#### ***9.2.1 All respirators***

All respirators will be stored to protect them from damage, contamination, dust, sunlight, extreme temperatures, excessive moisture and damaging chemicals.

#### ***9.2.2 Emergency respirators***

The University does not currently keep on hand respirators to be used in emergency situations.

### **9.3 Inspections**

The University will ensure that respirators are inspected according to the following:

#### ***9.3.1 All Respirators***

All respirators used in routine situations must be inspected before each use (see Appendix F of this program). The University will ensure that respirator inspections include the following:

- A check of respirator for nicks, abrasions, cuts or creases in the seal area;
- A check of the respirator straps to assure they are not cut or otherwise damaged; and
- Make sure the metal nose clip is in place and functions properly.

### **9.4 Defective Equipment and Repairs**

The University will ensure that respirators that fail an inspection or are otherwise found to be defective are removed and discarded immediately.

## **10.0 Training and Information**

The University will train affected employees in the respiratory hazards to which they are potentially exposed during routine situations. The training will be provided prior to requiring the employee to use a respirator in the workplace. Training will include the proper use of respirators, including putting on and removing them, any limitations on their use and their maintenance. Additionally, basic information on respirators in 1910.134, Appendix D (see Appendix D of this program) will be provided to the employees who wear respirators when not required by the OSHA standard or by the University to do so.

Training will be comprehensive, understandable and reoccur annually and more often if necessary.

The University will ensure that each employee can demonstrate knowledge of at least the following:

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



- What the limitations and capabilities of the respirator are;
- How to inspect, put on and remove, use and check the seals of the respirator;
- What the procedures are for maintenance and storage of the respirator;
- How to recognize medical signs and symptoms that may limit or prevent the effective use of respirators; and
- The general requirements of the OSHA standard 1910.134.

### **10.1 Retraining**

Retraining will be administered annually, and when the following situations occur:

- Changes in the workplace or the type of respirator render previous training obsolete;
- Inadequacies in the employee's knowledge or use of the respirator indicate that the employee has not retained the requisite understanding or skill; or
- Any other situation arises in which retraining appears necessary to ensure safe respirator use.

### **10.2 Program Evaluation**

The University will conduct regular evaluations of the workplace to ensure that the written respiratory protection program is being properly implemented, and to consult employees to ensure that they are using the respirators properly. Employees required to use respirators will be asked for their views on the program's effectiveness and to identify any problems. Problems that are identified during this assessment will be corrected.

Factors to be assessed include, but are not limited to:

- Respirator fit (including the ability to use the respirator without interfering with effective workplace performance);
- Appropriate respirator selection for the hazards to which the employee is exposed;
- Proper respirator use under the workplace conditions the employee encounters; and
- Proper respirator maintenance.

## **11.0 Recordkeeping**

The University will establish and retain written information regarding medical evaluations, fit testing and this respirator program. This information will facilitate employee involvement in the respirator program, assist the University in auditing the adequacy of the program, and provide a record for compliance determinations by OSHA.

Records and a copy of this program will be made available upon request to affected employees and to the

Assistant Secretary of OSHA for examination and copying.

### **11.1 Medical Evaluation Records**

Records of medical evaluations required by this section will be retained for the duration of employment plus an additional 30 years and made available in accordance with 29 CFR 1910.1020. Medical evaluation records are confidential and will be kept in individual employee files.

### **11.2 Records of Fit-Testing**

The University will establish a record of the qualitative and quantitative fit tests administered to an employee. Fit test records will be retained for respirator users until the next fit test is administered. Fit-testing records will include at least the following:

- The name or identification of the employee tested;
- The type of fit test performed;
- The specific make, model, style, and size of respirator tested;
- The date of test; and
- The pass/fail results for QLFTs or the fit factor and strip chart recording or other recording of the test results for QNFTs.

The Associate Vice President of Public Safety will maintain the fit-testing records.

# Appendix A

## Hazard Evaluation Template

|                         |                         |
|-------------------------|-------------------------|
| <b>Name:</b>            | <b>Assessment Date:</b> |
| <b>Job Title:</b>       | <b>Job Frequency:</b>   |
| <b>Department:</b>      | <b># Shifts:</b>        |
| <b>Location:</b>        | <b>Avg. Duration:</b>   |
| <b>Job Description:</b> |                         |

| Contaminant (s) | Exposure Level (8hr. TWA ppm) | PEL (ppm) | IDLH (ppm) |
|-----------------|-------------------------------|-----------|------------|
|                 |                               |           |            |
|                 |                               |           |            |
|                 |                               |           |            |
|                 |                               |           |            |

**Environmental Factors:**

**Engineering Controls:**

**Personal Protective Equipment:**

**Comments:**

**Assessor's Name:**

**Job Title:**

## Appendix B

### Respiratory Questionnaire Health Surveillance Record

Name: \_\_\_\_\_

Date of Birth: \_\_\_\_\_ Current Age: \_\_\_\_\_ Sex:  Male  Female Ht. \_\_\_\_\_ Wt. \_\_\_\_\_

Company: \_\_\_\_\_

Department: \_\_\_\_\_ Job Title: \_\_\_\_\_

Telephone #: Home: \_\_\_\_\_ Work: \_\_\_\_\_

Family Physician: \_\_\_\_\_

Home Address: \_\_\_\_\_

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Can you read?  Yes  No

Have you worn a respirator?  Yes  No Type:  Filter mask, non-cartridge  
 Cartridge, full face  half face   
 Powered-air purifying  
 SCBA

Have you ever had the following problems wearing a respirator?  Yes  No

Eye irritation  Anxiety  
 Skin allergies or rashes  General weakness  
 Any other problem that interferes with your use of a respirator \_\_\_\_\_

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Do you have a beard, moustache, or long sideburns?  Yes  No

Do you wear dentures?  Yes  No Any history of broken bones in face?  Yes  No

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Are you currently taking any medications for breathing or lung problems, heart trouble,  Yes  No  
high blood pressure, seizures?

If yes, list \_\_\_\_\_

Do you have any medication allergies?  Yes  No

If yes, list \_\_\_\_\_

Do you currently smoke tobacco or have you in the last month?  Yes  No

If yes, history: \_\_\_\_\_ packs/day for \_\_\_\_\_ years. If you quit, when? \_\_\_\_\_

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Have you ever had or do you have any of the following?  Yes  No

- |  |   |
|--|---|
| <input type="checkbox"/> Seizures  | <input type="checkbox"/> Chronic Bronchitis                           |
| <input type="checkbox"/> Diabetes  | <input type="checkbox"/> Emphysema                                    |
| <input type="checkbox"/> Allergic reactions<br>that interfere with breathing | <input type="checkbox"/> Pneumonia                                    |
| <input type="checkbox"/> Claustrophobia (fear of confined space)             | <input type="checkbox"/> Tuberculosis                                 |
| <input type="checkbox"/> Trouble smelling odors                              | <input type="checkbox"/> Collapsed lung                               |
| <input type="checkbox"/> Asbestosis, silicosis                               | <input type="checkbox"/> Lung cancer                                  |
| <input type="checkbox"/> Asthma  | <input type="checkbox"/> Chest injuries, broken ribs, chest surgeries |
|  | <input type="checkbox"/> Any other lung condition?                    |

Do you currently have any of the following lung symptoms?  Yes  No

- Shortness of breath
  - a. Walking fast on level ground or up slight incline
  - b. Walking on level ground at ordinary pace
  - c. Washing or dressing yourself
  - d. Interfering with your job
- Coughing
  - a. Producing phlegm (thick mucus)
  - b. Waking you early in morning
  - c. Lying down
  - d. Productive of bloody mucus
- Wheezing
  - a. Interfering with your job
- Chest pain when taking a deep breath?
- Other symptoms you think may be related to lung problems?

Have you ever had any of the following heart problems?  Yes  No

- |   |   |
|---|---|
| <input type="checkbox"/> Heart attack             | <input type="checkbox"/> Angina, chest pain       |
| <input type="checkbox"/> High blood pressure      | <input type="checkbox"/> Irregular heartbeat      |
| <input type="checkbox"/> Stroke                   | <input type="checkbox"/> Heart failure            |
| <input type="checkbox"/> Swelling in legs or feet | <input type="checkbox"/> Any other heart problems |

Have you ever had any of the following heart symptoms?  Yes  No

- Frequent pain or tightness in chest
- Pain or chest tightness with physical activity or that interferes with job

- Skipped or missed heartbeats
  - Heartburn or indigestion unrelated to eating
  - Any other symptoms related to heart or circulation problems
- 
- 

**Certification:**

I certify that all of the information I completed above is true and correct to the best of my knowledge.

Print Name: \_\_\_\_\_

Signature: \_\_\_\_\_

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

Answering the following questions is **mandatory for full-face respirator or SCBA users** and voluntary for all other respirator users.

Have you ever lost vision in either eye (temporarily or permanently)?  Yes  No

Do you currently have any of the following vision problems?  Yes  No

- Wear contact lenses
- Color blind
- Wear glasses
- Any other eye or vision problems

Have you ever had an injury to your ears (including a punctured ear drum)?  Yes  No

Do you currently have any of the following hearing problems?

- Difficulty hearing
- Wear a hearing aid
- Any other hearing or ear problem

Have you ever had a back injury?  Yes  No

Do you currently have any of the following musculoskeletal problems?  Yes  No

- Weakness in arms, hands, legs, feet
- Back pain
- Limitation of movement in arms or legs
- Pain or stiffness when leaning forward or backward at waist
- Limitation of neck movement up and down, side to side
- Difficulty bending at knees, squatting
- Difficulty climbing stairs or ladder carrying more than 25 pounds
- Any other musculoskeletal problem that interferes with wearing a respirator

Have you had any significant exposure to highly toxic substance since last evaluation?  Yes  No

Have you had a significant weight gain or loss since last evaluation?  Yes  No

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**Certification:**

I certify that all of the information I completed above is true and correct to the best of my knowledge.

Print Name: \_\_\_\_\_

Signature: \_\_\_\_\_

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

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## PHYSICAL EXAMINATION

Height \_\_\_\_\_ Weight \_\_\_\_\_ BP \_\_\_\_\_ P \_\_\_\_\_ Snellen: Right eye  
Left eye  
Both eyes

Check if normal; comment on any observed abnormalities. Use space at right for comments.

- General appearance: COMMENTS
- Facial hair:
- Eyes: contacts: \_\_\_\_\_ glasses: \_\_\_\_\_
- Ears: TM's intact
- Nose/Sinuses:
- Mouth:
- Neck:
- Lungs:
- Heart:
- Neuro:
- Sensory:
  - Motor:
  - Deep Tendon Reflexes:
  - Tremors:
  - Cerebellar:
  - Romberg:
- Musculoskeletal:

Summary of Significant Findings

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Diagnostic Tests (attach results):

Pulmonary Function Test: Normal \_\_\_\_\_ Abnormal \_\_\_\_\_

Booth Audiometry

Chest X-ray (if indicated)



Recommended For Respirator Use:

- (1) Medically cleared; no restrictions: \_\_\_\_\_.
- (2) Approval for use of \_\_\_\_\_ respirator only.
- (3) Use of respirator is not recommended at this time.

Further action needed:

YES  NO

If yes: Is medical release consent form needed?

YES  NO

Is further pulmonary work up needed?

YES  NO

Is further cardio vascular work up needed?

YES  NO

Action taken: \_\_\_\_\_

\_\_\_\_\_  
Clinician's Signature

\_\_\_\_\_  
Date

## Respiratory Certification

A. *To Be Completed by the Appropriate Employer Representative*

COMPANY: \_\_\_\_\_ DATE: \_\_\_\_\_

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

TYPE OF RESPIRATOR (Circle all that apply):

1. Air Purifying Mask
2. Chemical Cartridge or Canister Mask
3. Atmosphere Supplying Respirator
4. Self Contained Breathing Apparatus (SCBA)

B & C *To Be Completed by Examining Clinician (Do not place diagnoses on this form)*

B. **STATUS** (circle one):

1. Physically able to use any respirator; see Section C1 for limitations, if any.
2. Physically Able to use type of respirator indicated above -- Type (#) \_\_\_\_\_; see Section C1 for limitations, if any.
3. Not able to wear respirator.
4. Cannot be determined at this time; see Section C2 for recommendations, if any.

C. **LIMITATIONS OR RECOMMENDATIONS** (circle all that apply):

- |   |   |
|---|---|
| <ol style="list-style-type: none"><li>1. <u>Limitations</u><ol style="list-style-type: none"><li>a. Possible face fit problems due to facial characteristics (i.e., beard, hollow cheeks, etc.)</li><li>b. Uses full or partial dentures or has no teeth</li><li>c. Uses contact lenses</li><li>d. Has impaired sense of smell</li><li>e. Has impaired sense of taste</li><li>f. Has perforated eardrum(s)</li><li>g. Has allergy to _____</li><li>h. Needs to wear eyeglasses</li><li>i. Needs spectacle inserts</li><li>j. Temporary clearance for _____ weeks, pending _____</li><li>k. Other: _____</li></ol></li></ol> | <ol style="list-style-type: none"><li>2. <u>Recommendations</u><ol style="list-style-type: none"><li>a. Needs stress test</li><li>b. Needs EKG</li><li>c. Needs chest x-ray</li><li>d. Needs pulmonary function test</li><li>e. Re-evaluate in _____ years/months</li><li>f. Needs to be observed wearing respirator for _ week(s).</li><li>g. Other: _____</li></ol></li></ol> |
|---|---|

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

Clinician Signature: \_\_\_\_\_

Clinician Name: \_\_\_\_\_

(please print)

*A copy of this certificate letter has been provided to the employee.* \_\_\_\_\_ *(initials)*

## Appendix C

### User Seal Check Procedures (Mandatory)

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

#### I. Face Piece Positive and/or Negative Pressure Checks

*A. Positive pressure check with an N95 respirator.* With the respirator securely in place exhale greatly. The respirator will bulge slightly. If air leaks between the face and the face-seal of the respirator, reposition it and readjust the nose clip for a more secure seal.

*B. Negative pressure check with an N95 respirator.* With the respirator securely in place inhale greatly. The respirator will collapse slightly. If air leaks between the face and the face-seal of the respirator, reposition it and readjust the nose clip for a more secure seal.

#### II. Manufacturer's Recommended User Seal Check Procedures

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

## Appendix D

### 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.