Respiratory Protection Program
(EHS Program Manual 7.1)

1.0 Introduction
As part of Weill Cornell Medicine (WCM) Environmental Health and Safety (EHS) Program Manual, this Respiratory Protection Program recognizes the existence of chemical, particulate, or biological air contaminants, or areas that may have oxygen deficient atmospheres, where the need for respiratory protection is required. The Occupational Health and Safety Administration (OSHA) under its Respiratory Protection Standard (29CFR1910.134) mandates establishing policy and procedures for employees who must wear respiratory protection. This document shall serve as the Medical College’s formal written program. This program shall be routinely reviewed by Environmental Health and Safety (EHS) personnel to address its efficacy and maintain provisions as deemed necessary.

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T:\Documentation\EHS-Manual\7.1_ Respiratory_Protection_Program.docx [1115]
3.0 Objective

The purpose of this respiratory protection program is to ensure that all faculty, staff, students, and visitors at WCM are adequately protected against workplace hazards through assessment and respirator assignment and fit testing. Assessments are made depending upon the hazards present. Occupational Safety and Health Administration (OSHA) monitoring may be performed, depending on the hazards and the determination made on whether respiratory protection is necessary and what type. This program is in compliance with OSHA’s Respiratory Protection Standard, 1910.134.

4.0 Applicability

The Respiratory Protection Program applies to all members of the WCM community who need to use respiratory protection in the course of performing their duties. The following departments have been identified where individuals may need to use respiratory protection in the course of performing their work duties (but personnel in other departments may require it as well, depending on their specific duties):

- Facilities Engineering and Maintenance personnel
- BSL-2 and BSL-3 lab users
- Research Animal Resource Center personnel
- Other laboratory personnel identified as working with specified hazards where respiratory protection is needed
- Clinical personnel in areas where high-risk procedures are done

5.0 Responsibilities

5.1 ENVIRONMENTAL HEALTH AND SAFETY (EHS)

- Is the Program Administrator for the Respiratory Protection Program
- Assures the Medical College’s compliance with the Respirator Program
- Develops, evaluates, and maintains the Respiratory Protection Program
- Identifies known work activities and exposures requiring respiratory protection
- Conducts hazard and exposure assessments (types of hazards and levels)
- Provides a variety of types of respiratory protection for selection and fit testing
- Recommends to users and supervisors the types of respiratory protection that need to be purchased
- Obtains medical evaluation clearances conducted by Workforce Health and Safety (WHS) from employees
- Provides yearly fit testing and documents training of all respirator users
- Maintains training records
- Evaluates this Program as necessary

5.2 PRINCIPLE INVESTIGATORS AND DEPARTMENT CHAIRS

- Ensure their departments and personnel comply with the requirements of this Program
- Provide respirators as recommended by the Program Administrator
- Alert EHS of new chemical usage or new procedures where hazard assessments are necessary to determine exposure

5.3 FACILITIES MANAGEMENT / MAINTENANCE

- Ensure the department and its employees comply with the requirements of this Program
- Provide respirators as recommended by the Program Administrator
- Alert Environmental Health and Safety of new chemical usage or new procedures where hazard assessments are necessary to determine exposure
- Inform outside contractors on which areas respiratory protection is required
5.4 WORKFORCE HEALTH AND SAFETY (WHS)
- Conducts initial medical evaluations
- Requests medical test, consultation or diagnostic tests
- Administers OSHA Medical Questionnaire
- Develops written procedures for managing medical evaluations
- Provides employees with written documentation

5.5 STUDENT HEALTH SERVICES
- Conducts initial medical evaluations
- Requests medical test, consultation or diagnostic tests
- Administers OSHA Medical Questionnaire
- Develops written procedures for managing medical evaluations

5.6 RESPIRATOR USERS / EMPLOYEES
- Wear respiratory protection when performing work that involves respirable hazards
- Use respirators in accordance with instructions and training received
- Store and maintain respiratory equipment in accordance with manufacturers’ instructions and training received
- Clean respiratory equipment according to training received for reusable respirators
- Limit facial hair to growth that will not interfere with proper respiratory device fit and seal.
- Evacuate contaminated areas during any respirator malfunction
- Perform a fit check as demonstrated during training whenever donning the respirator
- Change out filters and cartridges as per training received

6.0 Respirator Types and Filters / Cartridges
A variety of respiratory protection options are available based on the hazards present. They are as follows:
- N-95 respirators
- P-95 respirators
- ½ face negative air respirators
- Full-face negative air respirators
- Powered Air Purifying Respirator (PAPR) (positive air respirator)
- Self-Contained Breathing Apparatus (SCBA) (positive air respirator)
- Other types of respirators identified as part of this program

6.1 FILTERS, CARTRIDGES AND OTHER ACCESSORIES
- N-95, P-95, N-99 particulate filters
- P-100 (HEPA) 99.97% particulate filters
- Organic vapor, acid gas, ammonia/amines cartridges
- Formaldehyde, mercury cartridges
- Spectacle kits for full face piece

7.0 Duties That May Require Respiratory Protection
Assessments are made of the various duties that may require respiratory protection. They are as follows:

7.1 LABORATORY WORK
- Research under Biosafety Level 3 or Biosafety Level 2 where an evaluation has been made that this is necessary.
- Technical procedures, such as pressuring liquids, sonicating, and grinding or sawing primate tissue that present high rate of aerosolizing materials.
CONTINUED: Respiratory Protection Program

- Procedures with infectious materials generally handled inside biological safety cabinets that cannot be performed inside the cabinet (i.e. microscopy).
- Handling regulated medical or chemical waste.
- Work with hazardous chemicals with or without a chemical hood.

7.2 CLINICAL WORK

- Entering the room of a patient on respiratory isolation or providing ER consultations.
- Administering aerosolized ribavirin to patients with respiratory syncytial virus (RSV).
- Performing or assisting at a procedure on a patient with known or suspected tuberculosis or other communicable respiratory infections. Clinical areas with reasonably anticipated exposure to patients with communicable respiratory infections should have a sufficient number of staff who are trained and fitted for respirator use to be able to administer the necessary care.

Note: Employees in non-WCM owned/operated spaces must comply with the host institution’s Respiratory Protection Policy.

7.3 FACILITIES

- Chemical fume hood repair
- Filter changes on HVAC systems
- Painting and working with paint products
- Welding
- Grinding, sanding and cutting
- Maintaining and treating water systems

7.4 OUTSIDE CONTRACTING

- Asbestos abatement activities
- Lead abatement activities
- Mold abatement activities

7.5 OTHER

- Chemical waste collection and consolidation
- Emergency response
- Anything constituting an “Immediately Dangerous to Life or Health” (IDLH) situation

8.0 Program Administration

8.1 DETERMINING RESPIRATOR USAGE

EHS has several methods for determining if a respirator is needed in the course of one’s work duties. They include the following:

- Hazard Assessment through personal monitoring when the chemical is known and the exposure levels need to be determined
- Identification of those job functions requiring respiratory protection. In addition to duties listed above, other job functions may be identified as needing respiratory protection
- Doing an environmental or safety assessment based on physical or other hazards present that would constitute the need for using respiratory protection

8.2 HEALTH HAZARD EVALUATION

WHS will perform a health evaluation prior to the assignment of respirator usage.

- A questionnaire (Appendix B) will be given to the employee to be completed. An evaluation will be made based on the information supplied in the questionnaire.
- OHS will review the questionnaire and follow up with a physical exam. On the passing of the exam, the employee will be given a signed copy of the respiratory clearance form.
8.3 FIT TESTING

Once the medical clearance has been issued, Environmental Health and Safety will review the medical clearance form and perform the following:

- Fit test the employee for the respiratory protection needed based on the criteria in section 8.1 (Determining Respirator Usage)
- Offer a selection of sizes and brands for the particular type of respirator needed. All respirators shall be NIOSH/MSHA approved as well as the filters and cartridges.
- Fit test the employee based on the OSHA Fit test protocols for that particular type of respirator and filtering media (Appendix C)
- Train the employee on the proper donning, doffing, care, cleaning, and fit checking of the respirator.
- Complete the fit test record (Appendix A) and have the employee sign it. Employees who are using respirators on a voluntary basis and don’t meet the criteria in section 8.1, need to complete the form and check box. They must receive medical clearance, be fit tested and received the standard training for respiratory protection
- Require those employees with excessive facial hair to trim it and return to be retested.
- Provide a spectacle kit to insert in the respirator to any employee who requires corrective eyewear and who must be able to wear full-face respiratory protection. The employee will have their prescription made up for the spec insert at no cost to them.
- Notify the employee, Workforce Health and Safety, and the employee’s supervisor of failure to pass a fit test and resulting removal from duties requiring a respirator.

8.4 RE-EVALUATION AND ANNUAL FIT TESTING

- Annual fit testing and training is required for all personnel assigned respiratory protection.
- If any condition changes in the person’s health, facial structure, job activities or hazards they are working with, they must be re-evaluated and fit tested prior to the annual fit testing.

9.0 User Responsibilities

9.1 OSHA FIT CHECK PROTOCOLS

See: [http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9781](http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9781). When putting on respiratory protection, the first thing the wearer must do is perform a positive and negative pressure fit (seal) check procedure. This is done to ensure that the respirator has been put on correctly and to ensure that there are no leaks where contaminants can enter.

9.2 DISPOSABLE RESPIRATORS

Gently cup both hands and place them along the edges of the respirator. Inhale and exhale a few times. Feel if any air is entering or escaping along the edges of the respirator, particularly around the nose and chin areas.

9.3 POSITIVE PRESSURE CHECKS

Close off the exhalation valve with the palm of your hand and exhale gently into the face piece. The face-mask is considered satisfactory if a slight positive pressure can be built up inside the face piece 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.

9.4 NEGATIVE PRESSURE CHECKS

Close off the inlet opening of the canister or cartridge(s) by covering with the palms of the hands or by replacing the filter seal(s), inhale gently so that the face piece collapses slightly, and hold 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 face piece remains in its slightly collapsed condition and no inward leakage of air is detected, the tightness of the respirator is considered satisfactory.

9.4.1 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 procedure provided that the employer demonstrates that the manufacturer’s procedure are equally effective.
9.5 RESPIRATOR INSPECTION

Non-disposable, air purifying and supplied air respirators need to be checked prior to donning to ensure proper working order. The respirators and their assemblies must be cleaned and properly stored after each use to ensure that the wearer receives the maximum protection. Follow the inspection steps below:

1. Examine the rubber or silicon face piece for the following:
   - Excessive dirt or debris
   - Cracks, holes or tears
   - Inflexibility or distortion in rubber
   - Scratched or cracked lenses (for full-face)

2. Examine straps or harness for:
   - Tears or breaks
   - Loss of elasticity
   - Broken buckles or clips

3. Examine inhalation/exhalation valves for
   - Foreign matter
   - Missing gaskets
   - Cracks and tears
   - Improper installation of valves in body

4. Examine air purifying elements for:
   - Correct cartridge, canister or filter for hazard
   - Correct brand of filter/cartridge with brand of respirator
   - Properly threaded on mask,
   - Expired or depleted filters, cartridges, etc.

9.6 RESPIRATOR MAINTENANCE AND CARE

OSHA Procedures for Cleaning Non-Disposable Respirators:

1. Remove filters/cartridges or canisters. Disassemble face pieces 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. For simple cleaning, use one of available wipe pads with or without alcohol base depending on the respirator. This will disinfect the respirator and clean it after use.
3. For a more thorough cleaning, wash components in warm (43° C [110° 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.
4. Rinse components thoroughly in clean, warm (43° C [110° F] maximum), preferably running water. Drain.
5. When the cleaner used does not contain a disinfecting agent, respirator components should be immersed for two minutes in one of the following:
   - Hypochlorite solution (50 ppm chlorine) made by adding approximately one milliliter of laundry bleach to one liter of water at 43° C [110° F]; or,
   - Aqueous solution of iodine (50 ppm) made by adding approximately 0.8 milliliter of tincture of iodine (6-8 grams ammonium and/or potassium iodide /100cc of 45% alcohol) to one liter of water at 43° C [110° F]; or,
   - Other commercially available cleanser of equivalent disinfectant quality when used as directed, if their use is recommended or approved by the respirator manufacturer.
6. Rinse components thoroughly in clean, warm (43° C or [110° F] maximum), preferably running water drain. The importance of through rising cannot be over emphasized. Detergents or disinfectants that dry on face pieces may cause dermatitis. In addition, some disinfectant may cause deterioration of rubber or corrosion of metal parts if not completely removed.
7. Components should be hand-dried with a clean lint free cloth or air-dried.
8. Reassemble face piece, replacing filters, cartridges, and canisters when necessary.
9. Test the respirator to ensure that all components work properly.
10.0 Training

EHS shall provide initial and annual respiratory training and fit testing to WCM employees. The training shall be appropriate to the level of protection needed to perform tasks without risk of personal exposure. All training shall be conducted in a manner that is understandable by all employees regardless of educational level or language ability. WCM employees in the Respiratory Protection Program shall be trained to demonstrate knowledge of:

- 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 put on, inspect, use, remove, and check for seals of the respirator;
- How to clean, maintain and store the respirator;
- How to use the respirator effectively in emergency situations, including situations in which the respirator malfunctions;
- How to recognize medical signs and symptoms that may limit or prevent the effective use of respirators; and
- Understanding of the general requirement of OSHA’s Respiratory Protection Standard.

Respiratory protection retraining is required annually and shall be conducted as needed or when the following situations arise:

- Changes in the types of hazards used in the workplace
- Changes in the model, size or type of respirator the employee uses
- There are inadequacies in the employee’s knowledge or use of the respirator indicates that the employee has not retained the understanding or skill
- Any other situation arises in which retraining appears to be necessary

11.0 Record Retention, Availability, and Revisions

Training records, completed fit testing forms and medical clearance forms are kept in the Office of Environmental Health and Safety. Training records shall include the name, signature, ID number, department, division, position, e-mail address and phone extension. The fit testing form shall include name, department, phone extension and brand, size and type of respirator. Also, these will include the trainer/fit tester’s name, and the date(s) of training/fit testing. Training and fit testing records shall be retained in accordance with 29 CFR 1910.134(m). Medical Records shall be retained in accordance with 29 CFR 1910.1020.

12.0 Voluntary Respirator Usage


Respirators are an effective method of protection against designated hazards when properly selected and worn. The issue of respirators use is encouraged, even when exposures are below the exposure limit, to provide an additional level of comfort and protection for workers. If, however, a respirator is used improperly or not kept clean, the respirator itself can become a hazard, even if the amount of hazardous substance does not exceed the limits set by OSHA or ACGIH standards. If your department provides respirators for 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 respirator 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 packaging. It will tell you what the respirator is designed for and how much it will protect you.
3. Do not wear your respirator in atmospheres containing contaminants which your respirator is not designed to protect. For example, a respirator designed to filter dust particles will not protect you against gases, vapors, or very small solid particles of fume or smoke.
4. Keep track of your respirator so that you do not mistakenly use someone else’s respirator.
**13.0 Definitions**

**Aerosol**: Particles, solid or liquid, suspended in air

**Air–Purifying respirator**: A respirator in which ambient air is passed through an air-purifying element that removes the contaminant(s). Air is passed through air-purifying element by means of breathing action or by a blower.

**Assigned protection factor (APF)**: The expected workplace level of respiratory protection that would be provided by a properly functioning respirator or a class of respirators to properly fitted and trained users. Half-mask air-purifying respirators have an APF of 10; full-face have an APF of 50

**Atmosphere-supplying respirator**: A class of respirators that supply a respirable atmosphere, independent of the workplace atmosphere.

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

**Demand respirator**: An atmosphere-supplying respirator that admits breathing air to the face-piece only when a negative pressure is created inside the face-piece by inhalation.

**Disposable respirator**: A respirator that is designed to be discarded after end-of-service life renders it unsuitable for use.

**Dust**: An aerosol consisting of mechanically produced solid particles derived from the breaking up of larger particles. Dusts generally have a larger particle size when compared to fumes.

**End-of-service-life indicator (ESLI)**: A system that warns the respirators user of the approach of the end of adequate respiratory protection, for example, that the sorbent is approaching saturation or is no longer effective.

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

**Fit Test**: The use of a challenge agent to evaluate the fit of a respirator on an individual.

**Fume**: Solid aerosols formed by condensation of a gas or vapor.

**Gas**: A fluid that has neither independent shape nor volume and tends to expand indefinitely.

**Hazardous atmosphere**: An atmosphere that contains a contaminant (s) in excess of the exposure limit or that is oxygen deficient.

**Hazard ratio**: A number obtained by dividing the concentration of a contaminant by its exposure limit.

**Loose-fitting face-piece**: A respiratory inlet covering that is designed to form a partial seal with the face.

**Mist**: An aerosol composed of liquid.

**Negative pressure respirator (tight-fitting respirator)**: A respirator in which the air pressure inside the repertory inlet covering is negative during inhalation with respect to the ambient air pressure and forms a complete seal with the face.

**Oxygen deficient atmosphere**: A respirator in which the pressure inside the respiratory inlet covering is normally positive with respect to ambient air pressure.

**Powered air purifying respirator**: An air-purifying respirator that uses a blower to force the ambient atmosphere through air-purifying elements to the inlet covering.

**Pressure demand respirator**: A positive pressure atmosphere-supplying respirator that admits respirable gas to the face-piece when the positive pressure is reduced inside the face-piece inside the face-piece by inhalation.

**Qualitative fit test**: A pass/fail fit test that relies on the subject’s sensory response to detect the challenge agent.
Respirator: A personal device designed to protect the wearer from the inhalation of hazardous atmospheres.

Respiratory inlet covering: That part of a respirator that connects the wearer’s respiratory tract to an air-purifying device or a respirable gas source, or both. It may be a face-piece, helmet, hood, suit, or mouthpiece/nose clamp.

Self-Contained Breathing Apparatus (SCBA): An atmosphere supplying respirator in which the respirable gas source is designed to be carried by the wearer.

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

Tight-fitting face-piece: A respiratory inlet covering that forms a complete seal with the face.

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

Vapor: The gaseous phase of matter that normally exist in a liquid or solid state at room temperature.

14.0 References

14.1 APPLICABLE REGULATIONS AND STANDARDS
Occupational Safety and Health Administration (OSHA). Respiratory Protection Standard, 29 CFR 1910.134


14.2 ADDITIONAL REFERENCES

# Appendix A – WCM Fit Test Record

## Respirator Training and Fit Test

The following form verifies your completion of Respirator Use training and the corresponding Respiratory Fit Test. This respiratory fit test is in adherence to the Occupational Safety and Health Administration (OSHA) Respiratory Protection Standard, 29 CFR 1910.134 and American National Standards Institute Standard for Respiratory Protection, ANSI Z88.2.

<table>
<thead>
<tr>
<th>Fit Trainer/Administrator:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Name:</strong></td>
</tr>
</tbody>
</table>

### RESPIRATOR INFORMATION

Please select one from the below:

- [ ] Kimberly-Clark Tecnoflo FluidShield® (N95), Size: [ ] Regular  [ ] Small
- [ ] 3M 9210® Aura (N95)
- [ ] 3M 1860 (N95)
- [ ] 3M 1800S (N95)
- [ ] MSA Ultra Elite (Full Face), Size: [ ] Large  [ ] Medium  [ ] Small
- [ ] Other:

<table>
<thead>
<tr>
<th>Fit Test Agent:</th>
<th>Fit Test Filter:</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ ] Saccharin</td>
<td>[ ] N/95</td>
</tr>
<tr>
<td>[ ] Bitrex</td>
<td>[ ] N/99</td>
</tr>
<tr>
<td>[ ] Isoamyl Acetate</td>
<td>[ ] Organic Vapor</td>
</tr>
</tbody>
</table>

### FIT TEST RESULTS

- [ ] PASSED  [ ] FAILED

I certify that I have been trained in the use and care of respirators and fit tested with the respirator listed above. I also understand that the fit test is voided if the respirator is worn in conditions which prevent a good face seal (e.g., growth of a beard, significant weight gain, or major dental work). If the Voluntary Respirator Use Agreement is checked “Yes” below, I understand and agree to all corresponding statements above it.

<table>
<thead>
<tr>
<th>Signature:</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructor and Fit Tester:</td>
<td>Date:</td>
</tr>
</tbody>
</table>

### EHS USE ONLY - VOLUNTARY RESPIRATOR USE AGREEMENT

By EHS checking the “Yes” box below, the respirator user is agreeing to the following:

I understand that the respirator which I am using in the performance of my duties at Weill Cornell Medical College is strictly intended to be used as protection against nuisance levels and that I am NOT using it in order to provide protection in a situation where there are hazardous concentrations or permissible exposure levels (PELs) of vapors, particles, smoke, fumes or mist set by the Occupation Health and Safety Administration (OSHA).

I further understand that all employees who risk exposure to hazardous concentrations of vapors, particles, smoke, fumes or mist in the performance of their duties at WCMC are required to obtain mandatory respiratory safety training, medical evaluations, fit-testing, and the appropriate respiratory protection equipment.

- [ ] Yes, the respirator user agrees to the Voluntary Respirator Use Agreement.
Appendix B – OSHA Respirator Medical Evaluation Questionnaire

### OSHA Respirator Medical Evaluation Questionnaire

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. RETURN THIS QUESTIONNAIRE TO OCCUPATIONAL HEALTH SERVICE (OHS).

THE FOLLOWING INFORMATION MUST BE PROVIDED BY EVERY EMPLOYEE WHO HAS BEEN SELECTED TO USE ANY TYPE OF RESPIRATOR. PLEASE PRINT, OR PLEASE CIRCLE ONE OF THE ANSWERS TO THE FOLLOWING QUESTIONS:

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Today’s date:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Name:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Age (to nearest year):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Sex Male Female</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Height: ft in. Weight lbs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Job title:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Department:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. A daytime phone no. where you can be reached by the health care professional who reviews this questionnaire (Including Area Code):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. The best time to phone you at this number:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Check the type of respirator you will use (you can circle more than one category):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. N, R, or P disposable respirator (isolation/TB mask; non-cartridge type only)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Other type (e.g. half or full-face piece type, powered-air purifying, supplied-air, self-contained breathing apparatus)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Unknown</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Have you worn a respirator? yes no</td>
<td></td>
<td></td>
</tr>
<tr>
<td>If “yes” what type(s) (circle all that apply):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. particulate respirator (isolation/TB mask/lilter mask)</td>
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<td>b. full face mask</td>
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<tr>
<td>c. self-contained breathing apparatus</td>
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<tr>
<td>d. other (explain)</td>
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<tr>
<td>12. Do you currently smoke tobacco, or have you smoked tobacco in the last month? yes no</td>
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<tr>
<td>13. Have you ever had any of the following conditions? yes no</td>
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<tr>
<td>a. Seizures (fits)</td>
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<tr>
<td>b. Diabetes (sugar disease)</td>
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<tr>
<td>c. Allergic reactions that interfere with your breathing</td>
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<tr>
<td>d. Claustrophobia (fear of closed in places)</td>
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<tr>
<td>e. Trouble smelling odors</td>
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<tr>
<td>f. Shortness of breath when walking fast on level ground or waking up a slight hill or incline yes no</td>
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<td>g. Shortness of breath when walking with other people at an ordinary pace on level ground yes no</td>
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<tr>
<td>h. Have to stop for breath when walking at your own pace on level ground yes no</td>
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<tr>
<td>i. Shortness of breath when washing or dressing yourself yes no</td>
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<td>j. Coughing that interferes with your job yes no</td>
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<td>k. Coughing that produces phlegm (thick sputum) yes no</td>
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<td>l. Coughing that wakes you early in the morning yes no</td>
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<td>m. Coughing that occurs mostly when you are lying down yes no</td>
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<tr>
<td>n. Coughing up blood in the last month yes no</td>
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</tbody>
</table>

### OSHA Respirator Medical Evaluation Questionnaire

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>15. Have you ever had any of the following pulmonary or lung problems?</td>
<td></td>
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<tr>
<td>a. Asbestosis</td>
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<tr>
<td>b. Asthma</td>
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<td>c. Chronic bronchitis</td>
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<td>d. Emphysema</td>
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<tr>
<td>e. Pneumonia</td>
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<td>f. Tuberculosis</td>
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<tr>
<td>g. Silicosis</td>
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<tr>
<td>h. Pneumothorax (collapsed lung)</td>
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<tr>
<td>i. Lung cancer</td>
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<td></td>
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<tr>
<td>j. Broken ribs</td>
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<tr>
<td>k. Any chest injuries or surgeries</td>
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<tr>
<td>l. Any other lung problem that you’ve been told about</td>
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NEW YORK-PRESBYTERIAN HOSPITAL
New York Weill Cornell Center

OSHA RESPIRATOR MEDICAL EVALUATION QUESTIONNAIRE
OCCUPATIONAL HEALTH SERVICE

17. 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

18. 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 2 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

19. 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

20. 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 21.)
   a. Eye irritation
      yes   no
   b. Anxiety
      yes   no
   c. Skin allergies or rashes
      yes   no
   d. General weakness or fatigue
      yes   no
   e. Any other problem that interferes with your use of a respirator
      yes   no

21. Would you like to talk to the health care professionals in OHS who will review this questionnaire about your answers to this questionnaire?
    yes   no

STOP HERE UNLESS INSTRUCTED TO CONTINUE

22. Have you ever lost vision in either eye (temporarily or permanently)?
    yes   no

23. 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

24. Have you ever had an injury to your ears, including a broken ear drum
    yes   no

25. 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

26. Have you ever had a back injury
    yes   no

27. Do you currently have any of the following musculoskeletal problems?
   a. Weakness in any of your arms, hands, legs, or feet
      yes   no
   b. Back pain
      yes   no
   c. Difficulty fully moving your arms and legs
      yes   no
   d. Pain or stiffness when you lean forward or backward at the waist
      yes   no
   e. Difficulty fully moving your head up or down
      yes   no
   f. Difficulty fully moving your head side to side
      yes   no
   g. Difficulty bending at your knees
      yes   no
   h. Difficulty squatting to the ground
      yes   no
   i. Difficulty climbing a flight of stairs or ladder carrying more than 25 lbs
      yes   no
   j. Any other muscle or skeletal problem that interferes with using a respirator
      yes   no
Appendix C – OSHA Fit Test Protocols

Appendix D – OSHA Respiratory Protection Standard – 1910.134