

## **Policy**

The purpose of this program is to ensure that all employees required to wear respiratory protection as a condition of their employment are protected from respiratory hazards through the proper use of respirators. All respirator use will occur within the context of a comprehensive program as per the standards set forth by OSHA. This requires a written program, medical evaluation, training, and fit testing. See OSHA standard 29 CFR 1910.134 or [www.osha.gov](http://www.osha.gov) for additional information.

## **Program Scope and Application**

This program applies to all employees who may require respiratory protection for infection control purposes during normal work operations and during non-routine or emergency situations. This program is limited to the use of disposable particulate respirators (minimum N95). The types of work activities which require employees to wear disposable N95 respirators are outlined below:

<b>Work Activity to be Performed</b>	<b>Where, When, Other Factors</b>
Having any patient contact	When entering isolation room of patient on airborne precautions (such as TB, COVID-19)
Providing direct patient care and/or having close patient contact	In patient care areas when either CDC or recommend the use of N 95 precautions. Be specific to the tasks and settings to which your employees would likely be assigned.

## **Program Components**

- Program Administration
- Program Scope/Application
- Identifying Work Hazards
- Respirator Selection
- Medical Evaluations
- Fit Testing
- Proper Respirator Use
- Cleaning and Disinfecting
- Inspection and Storage
- Respirator Training
- Evaluating/Updating Program

- Roles and Responsibilities
- Documentation and Record-keeping

## **Program Administration**

\_\_\_\_\_ *{fill in the blank}* will be responsible for the administration of the respiratory protection program and thus is called the Respiratory Protection Program Administrator.

## **Roles and Responsibilities**

### **Respiratory Program Administrator (RPA)**

The Respiratory Program Administrator is responsible for administering the respiratory protection program. Duties of the RPA include:

- Identify work areas, processes, or tasks that require respiratory protection.
- Monitor OSHA standards for changes and revise policy as needed.
- Monitor CDC recommendations and guidelines as they relate to respiratory protection and other recommended infection control measures.
- Select respiratory protection products. Involve users in selection whenever possible.
- Monitor respirator use to ensure that respirators are used in accordance with this program, training received, and manufacturer's instructions.
- Coordinate medical evaluations with licensed healthcare professional.
- Evaluate any feedback information or surveys.
- Arrange for and/or conduct training and fit testing.
- Ensure proper storage and maintenance of respiratory protection equipment. • Conducting a periodic evaluation of the program and revising as needed.

### **Supervisors**

- Supervisors are responsible for ensuring that the respiratory protection program is implemented in their particular units.
- In addition to being knowledgeable about the program requirements for their own protection, supervisors must also ensure that the program is understood and followed by the employees under their charge.
- Duties of the Supervisor include:
  - Knowing the hazards in the area in which they work.
  - Knowing types of respirators that need to be used.
  - Ensuring the respirator program and worksite procedures are followed.
  - Ensuring employees receive medical evaluations.
  - Ensuring employees receive annual training and fit testing.
  - Ensuring staff use respirators, as required.

- Notifying Respiratory Protection Program Administrator of any problems with respirator use or changes in work processes that would impact program.
- Ensuring proper storage and maintenance of respirators in their unit.

**Employee**

- Participate in all training and fit testing
- Wear respirator when indicated
- Maintain equipment
- Inspect respirator and perform user seal check before every use
- Report malfunctions or concerns

**Identifying Work Hazards**

The respirators selected will be used as personal protection as part of an overall infection/virus control plan which incorporates engineering and work practice controls.

This agency will follow the most current CDC guidance on appropriate infection control practices.

Routine infection control and isolation practices for typical work situations are well known and tend to remain consistent over time. However, during an outbreak of a new virus type or pandemic flu, infection control guidance may change as the situation unfolds, based on available epidemiological data. In these situations, it will be the responsibility of the respiratory protection program manager to keep current with CDC recommendation. The program will be adjusted and employees will be kept informed as changes occur.

**Respirator Selection**

Only respirators approved by the National Institute for Occupational Safety and Health (NIOSH) will be selected and used. In making the determination of which respirators to select, the RPA will consider the type of settings and job activities employees will perform, the capabilities and limitations of the respirator, and duration of respirator use.

Respirators currently approved for use are as follows:

<b>Manufacturer</b>	<b>Model</b>	<b>Work task</b>

## **Medical Evaluation**

Persons assigned to tasks that require respiratory protection must be physically able to perform the tasks while wearing a respirator. **{name of facility/agency}** will provide a medical evaluation to determine the employee's ability to use a respirator, before the employee is fit tested or required to use the respirator in the workplace. A physician or other licensed health care professional (PLHCP) will perform the medical evaluations using the OSHA mandatory medical questionnaire (see Appendix A) and/or performing an initial medical examination that obtains the same information as the medical questionnaire.

A follow-up medical examination will be provided for any employee who gives a positive response to any question among questions 1 through 8 in Section 2, part A or whose initial medical examination demonstrates the need for a follow-up examination. Following a medical examination, **{name of facility /agency}** shall be provided a written recommendation regarding the employee's ability to use a respirator and any restrictions indicated.

All medical questionnaires and examinations shall be administered in a confidential manner during the employee's normal working hours (or at a time and place convenient to the employee). The employee will also be provided the opportunity to discuss the questionnaire and/or results of the examination with the PLHCP.

**NOTE:** Be sure employees can read and understand English before using the medical questionnaire. If he/she is unable to do so, provide assistance as needed or schedule a medical exam.

## **Fit Testing**

Fit testing is conducted to determine how well the seal of a respirator "fits" on an individual's face and that a good seal can be obtained. Respirators that do not seal do not offer adequate protection.

Employees shall be fit-tested with a respirator of the same make, model, style and size as that of the respirator that will be used by the employee. If, based on the fit-test, it is determined that the employee needs a different style or size of tight-fitting face piece, employees shall be given a reasonable opportunity to select a different face piece, and be re-tested.

Fit testing will be conducted at least annually AND:

Prior to being allowed to wear any respirator or

- If the model of respirator available for use changes or
- If the employee changes weight by 10% or more or

- If the employee has any changes in facial structure or scarring.

Records of fit testing shall be maintained by the Respiratory Protection Administrator for at least 3 years. See Appendix B for Fit Testing protocol. For Sample Record Form – see Appendix C.

## **Proper Respirator Use**

### **General Use**

Employees will use their respirators under the conditions specified by this program and in accordance with the training they receive on the use of the selected model(s). In addition, the respirator shall not be used in a manner for which it is not certified by the National Institute for Occupational Safety and Health (NIOSH) or by its manufacturer.

All employees shall conduct user seal checks according to manufacturer recommendations each time they wear a respirator.

Employees who wear respirators cannot have facial hair that comes between the sealing surface of the face piece and the face, or that interferes with the respirator functions.

All employees shall leave a potentially contaminated work area if the respirator is causing physical symptoms or the respirator no longer offers adequate protection (for example – strap breaks, becomes saturated with fluid, etc.)

### **Cleaning and Disinfecting**

A disposable particulate respirator cannot be cleaned or disinfected **UNLESS AN APPROVED DECONTAMINATION SYSTEM IS USED (SEE DECONTAMINATION RESOURCE ON THE N95 QUICK GLANCE PAGE)**. There is no specific time limit for how long an N95 respirator can be used.

If the medical condition requires only airborne isolation precautions (e.g., TB):

- Discard the respirator if it is soiled, if breathing becomes labored, or if structural integrity is compromised.

If condition also requires contact and/or droplet precautions:

- All PPE should be removed and disposed of in a receptacle prior to or upon exiting a patient room and hand hygiene performed immediately.
- However, in times of shortage, consideration can be given to covering the respirator with a surgical mask and discarding the mask after use but reusing the respirator. This decision will be made by the Respiratory Protection Program Administrator based on

the available supply and current epidemiological data and will be communicated clearly to staff.

### **Storage and Inspection**

Employees will inspect the respirator prior to use.

- Examine the disposable respirator to determine if it has structural integrity. Discard if there are nicks, abrasions, cuts, or creases in seal area or if the filter material is physically damaged or soiled.
- Check the respirator straps to be sure they are not cut or otherwise damaged.
- Make sure the metal nose clip is in place and functions properly (if applicable).

Respirators will be stored in a clean, dry area away from direct sunlight and extreme heat. The Respiratory Protection Program Administrator will periodically inspect a representative sample of respirators in storage to ensure they are in usable condition.

### **Respirator Training**

Employees shall be provided respiratory protection training upon initial assignment to jobs where a respirator has been determined necessary and at least annually thereafter unless it is determined through a workplace re-evaluation that respiratory protection is no longer necessary.

Workers will be trained prior to the use of a respirator. Training will include:

- Why the respirator is necessary
- Identify hazards, potential exposure to these hazards, and health effects of hazards
- Other required PPE if needed
- Respirator fit, improper fit, usage, limitations, and capabilities
- Usage and storage
- Inspecting, donning, removal, seal check and trouble shooting
- Explaining respirator program (policies, procedures, OSHA standard, resources)

See Appendix C for Sample Training Record Form.

### **Evaluating/Updating Program**

The Respiratory Protection Program Administrator will complete an annual evaluation of the respiratory protection program.

- Evaluate any feedback information or surveys.
- Review any new hazards or changes in CDC recommendations that would affect respirator use.

- The Respiratory Program Administrator will make recommendations and implement any changes needed in the respiratory protection program.

### **Documentation and Record-keeping**

A written copy of this program can be found \_\_\_\_\_ *{where -- fill in the blank}* \_\_\_\_\_

The Respiratory Protection Program Administrator maintains the medical information for all employees covered under the respiratory program. The completed medical forms and documented medical recommendations are confidential.

All relevant medical information must be maintained for the duration of the employment of the individual plus thirty years.

### **Attachments:**

**Appendix A: Sample Medical Questionnaire**

**Appendix B: Employee Training and Fit Test Procedure**

**Appendix C: Respirator Training and Fit-Testing Record for Qualitative Fit Test**

**Appendix D: Recommend incorporating specific information for the respirator(s)  
you have selected**





k.	Any chest injuries or surgeries		
l.	Any other lung problem that you've been told about		
4. Do you currently have any of the following symptoms of pulmonary or lung illness:		<b>YES</b>	<b>NO</b>
a.	Shortness of breath		
b.	Shortness of breath when walking fast on level ground or walking up a slight hill or incline		
c.	Shortness of breath when walking with other people at an ordinary pace on level ground		
d.	Have to stop for breath when walking at your own pace on level ground		
e.	Shortness of breath when washing or dressing yourself		
f.	Shortness of breath that interferes with your job		
g.	Coughing that produces phlegm (thick sputum)		
h.	Coughing that wakes you early in the morning		
i.	Coughing that occurs mostly when you are lying down		
j.	Coughing up blood in the last month		
k.	Wheezing		
l.	Wheezing that interferes with your job		
m.	Chest pain when you breathe deeply		
n.	Any other symptoms that you think may be related to lung problems		
5. Have you ever had any of the following cardiovascular or heart problems?		<b>YES</b>	<b>NO</b>
a.	Heart attack		
b.	Stroke		
c.	Angina		
d.	Heart failure		
e.	Swelling in your legs or feet (not caused by walking)		
f.	Heart arrhythmia (heart beating irregularly)		
g.	High blood pressure		
h.	Any other heart problem that you've been told about		
6. Have you ever had any of the following cardiovascular or heart symptoms?		<b>YES</b>	<b>NO</b>
a.	Frequent pain or tightness in your chest		
b.	Pain or tightness in your chest during physical activity		
c.	Pain or tightness in your chest that interferes with your job		
d.	In the past two years, have you noticed your heart skipping or missing a beat?		
e.	Heartburn or indigestion that is not related to eating		
f.	Any other symptoms that you think may be related to heart or circulation problems		
7. Do you currently take medication for any of the following problems?		<b>YES</b>	<b>NO</b>
a.	Breathing or lung problems		
b.	Heart trouble		
c.	Blood pressure		
d.	Seizures (fits)		

8. Have you ever used a respirator? IF NO, go to question 9. If you HAVE used a respirator, have you ever had any of the following problems?		<b>YES</b>	<b>NO</b>
a.	Eye irritation:		
b.	Skin allergies or rashes		
c.	Anxiety:		
d.	General weakness or fatigue?		
e.	Any other problem that interferes with your use of a respirator		
9. Would you like to talk to a health care professional about your answers to this questionnaire?			

## **Appendix B: Employee Training and Fit Test Procedure for Qualitative Fit Test**

### **Equipment:**

**Hood & Collar** (Note: some fit test kits are designed to use only the hood, not with a collar. Adapt instructions as necessary)

**Fit Test Solution** (Saccharin or Bitrex – whichever is used above.)

**Sensitivity Solution** (Saccharin or Bitrex)

**Nebulizer #1** (Sensitivity)

**Nebulizer #2** (Fit Test)

**N 95 Respirators** – selection of several

**Timer/clock**

**Water and drinking glasses**

**Mirror**

### **Preparation:**

1. Attach hood to collar by placing drawstring between flanges on collar. Tighten drawstring and tie with square knot or bow. (For equipment without a collar, follow manufacturer's instructions)
2. Pour a small amount (approximately one teaspoon) of Sensitivity Solution (solution #1) into nebulizer #1.
3. Pour a small amount (approximately one teaspoon) of Fit Test Solution (solution #2) into nebulizer #2.
4. Immediately recap the bottles.
5. Change solution every 4 hours; discard at end of day or after last testing procedure.

### **Sensitivity test**

This test is done to assure that the person being fit tested can detect either the sweet or the bitter taste of the test solution at very low levels. The Sensitivity Test Solution is a very dilute version of the Fit Test Solution. **The test subject should not eat, drink (except water), or chew gum for 15 minutes before the test.**

1. Have the test subject put on the hood and collar assembly without a respirator.

2. Position the hood assembly forward so that there is about six inches between the subject's face and the hood window.
3. Instruct the test subject to breathe through his/her mouth with tongue extended.
4. Using **Nebulizer #1 with the Sensitivity Test Solution (#1)**, inject the aerosol into the hood through the hole in the hood window.
  - **Inject ten squeezes** of the bulb, fully collapsing and allowing the bulb to expand fully on each squeeze.
  - Both plugs on the nebulizer must be removed from the openings during use.
  - The nebulizer must be held in an upright position to ensure aerosol generation.
5. Ask the test subject if he/she can detect the sweet or bitter taste of the solution. If tasted, **note the number of squeezes as 10** and proceed to the Fit Test.
6. If not tasted, inject an additional ten squeezes of the aerosol into the hood. Repeat with ten more squeezes if necessary. Note whether 20 or 30 squeezes produced a taste response.
7. **If 30 squeezes are inadequate, in that the subject does not detect the sweet or bitter taste, the test is ended. Another type of fit test must be used.**
8. Remove the test hood, and give the subject a few minutes to clear the taste from his/her mouth. It may be helpful to have the subject rinse his/her mouth with water.

### **Employee Education**

Education of employees shall include:

- Review written Respiratory Protection Program
- Description of the use of the respirator for patient care and/or public health emergency response protection from infectious diseases such as measles, varicella, smallpox, tuberculosis, SARS, COVID-19, or pandemic influenza.
- Importance of proper fit; consequences of improper fit, how improper use, storage, or failure to inspect can compromise protective effect
- Limitations:
  - Mask intended for biologic agents
  - Not a 100% guarantee; limits but does not totally eliminate the risk
  - does not protect against gasses, vapors, oil, aerosol, asbestos, arsenic, cadmium, lead, sandblasting
  - mask does not supply oxygen
  - Do not use with beards or facial hair that can obstruct a good seal
- Respirator malfunction:
  - If respirator becomes damaged or soiled, a leak is detected, or breathing becomes difficult, leave the contaminated area immediately and replace the respirator.
- Review manufacturer instruction sheet on proper donning, user seal check, and removal of respirator
- Storage, Cleaning and Reuse:
  - Store in clean, dry area with no exposure to direct sunlight or temperature extremes. *{ can use paper or plastic bag – describe where respirators are to be stored and how to obtain additional supplies}*
  - Do not crush respirator

## User Seal Check

The individual shall conduct a user seal check, using the procedure recommended by the respirator manufacturer. If the employee fails the user seal check, reposition and adjust the respirator and try again. If still unsuccessful, another mask shall be selected and a user seal check performed.

Remind employees that they must **perform a user seal check** to ensure that an adequate seal is achieved **each time the respirator is put on** using the respirator manufacturer's recommended user seal check method. User seal checks are not substitutes for fit tests.

## Reasons to Delay or Defer Fit Test

The fit test shall not be conducted if there is any hair growth between the skin and the face piece sealing surface, such as stubble beard growth, beard, mustache or sideburns that cross the respirator sealing surface. Any type of apparel that interferes with a satisfactory fit shall be altered or removed.

If an individual exhibits breathing difficulty during the tests, he or she shall be referred to a physician or other licensed health-care professional, as appropriate, to determine whether the individual can wear a respirator while performing his or her duties.

If the individual finds the fit of the respirator unacceptable, he or she shall be given the opportunity to select a different respirator and be retested.

## Perform the Fit Test:

- Have the test subject don the respirator and perform a user seal check.
- Before beginning, describe the fit-test process, the exercises the employee will perform, and the individual's responsibility to immediately signal the instructor if they taste the fit test solution or have any physical distress during the test procedure.
- Have the subject put on and position the test hood as before, and breathe through his/her mouth with tongue extended.
- Using **Nebulizer #2 with Fit Test Solution (#2)**, spray the fit test aerosol using the **same number of squeezes as required in the Sensitivity Test** (10, 20, or 30) for each exercise.
- A minimum of ten squeezes is required, fully collapsing and allowing the bulb to expand fully on each squeeze. The nebulizer must be held in an upright position to ensure aerosol generation.
- To maintain an adequate concentration of aerosol during this test, **inject one-half the number of squeezes** (5, 10, or 15) every 30 seconds for the duration of the fit test procedure.
- After the initial injection of aerosol, ask the test subject to perform the following test exercises for **60 seconds each**:

- **Normal breathing** — In a standing position, without talking, the subject shall breathe normally.
- **Deep breathing** — In a standing position, the subject shall breathe slowly and deeply, taking caution so as not to hyperventilate.
- **Turning head side to side** — Standing in place, the subject shall slowly turn his/her head from side to side between the extreme positions on each side. The head shall be held at each extreme momentarily so the subject can inhale at each side. ○
- **Moving head up and down** — Standing in place, the subject shall slowly move his/her head up and down.
- **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 below, count backward from 100, or recite a memorized poem or song.

### **Rainbow Passage**

*When the sunlight strikes raindrops in the air, they act like a prism and form a rainbow. The rainbow is a division of white light into many beautiful colors. These take the shape of a long round arch, with its path high above, and its two ends apparently beyond the horizon. There is, according to legend, a boiling pot of gold at one end. People look, but no one ever finds it. When a man looks for something beyond reach, his friends say he is looking for the pot of gold at the end of the rainbow.*

- **Bending Over** -- The individual shall bend at the waist as if he or she were to touch his or her toes. Jogging in place can be substituted for this exercise in those tests environments such as shroud type QLFT units that do not permit bending over at the waist.
- **Normal Breathing** -- In a normal standing position, without talking, the individual shall breathe normally.

Each test exercise shall be performed for one minute. The individual shall be questioned by the test conductor regarding the comfort and fit of the respirator upon completion of the protocol. If it is unacceptable, another model of respirator shall be tried.

If the bulb of the nebulizer becomes difficult to squeeze or when you squeeze there is no visible mist released, check to be sure there is sufficient fit test solution and that the opening from the rubber bulb into the solution chamber is not clogged. Remove the small plastic piece and Insert the thin looped wire into the hole to unclog it. Also check the hole in the little plastic piece to be sure this is not clogged.

When the fit tests are complete, record the results. Make sure the employee knows the model and size of the respirator they were tested with.

If performing multiple fit-tests, clean nebulizer at least every 4 hours and when all fit-tests are completed. Use warm soapy water to clean the nebulizer and all its components. Rinse and allow them to air dry. Wipe the inside of the testing chamber with a disposable antiseptic pad as needed and when fit-tests are complete. Allow hood and nebulizers to dry thoroughly before storing.

All fit-testing must comply with the OSHA standard. The fit-test methods are outlined in Appendix A of 19 CFR 1910.134.

<b>Appendix C: Respirator Training and Fit-Testing Record for Qualitative Fit Test</b>		
<b>Section 1 – To be Completed by Employee</b>		
Employee Name	Title	Date
<b>Training</b>		
I have received and understood training on each of the subjects checked below :		Check
• Review of written Respiratory Protection Program		
• Description of the activities and circumstances for which respirator use is required		
• Importance of proper fit and the consequences of improper fit		
• Importance of proper use, storage, or inspection		
• Limitations of this type of respirator		
• Appropriate action if respirator becomes damaged, a leak is detected or breathing becomes difficult		
• Review of manufacturer instruction sheet on proper donning, performing user seal check, and removing respirator		
• How to store respirator and when to discard or reuse		
<b>Use</b>		
Describe anticipated job assignments for which respiratory protection will be required:		
_____		
_____		
_____		
<b>Employee's Name</b>	<b>Signature</b>	<b>Date</b>
<b>Section 2 – To be completed by Fit-Tester</b>		
<b>Check One:</b> [ ] Initial fit-test [ ] Annual re-test	<b>Test solution</b> [ ] Saccharin [ ] Bitrex	

[ ] Unable to complete test - list reason \_\_\_\_\_

[ ] Failed fit test – list type of respirator(s) tested

Manufacturer	Model Type	Size

[ ] Successfully completed fit test – list type of respirator(s) tested

Manufacturer	Model Type	Size

**Fit Tester's Name**

**Signature**

**Date**