



Respiratory Protection Program

Mary Greeley Medical Center

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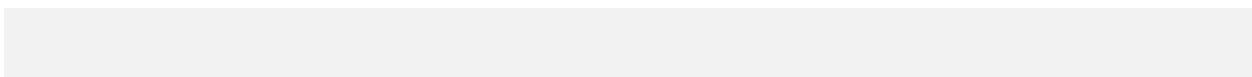


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1.0 Purpose and Applicability

It is the policy of Mary Greeley Medical Center to protect the health and safety of its employees by (1) eliminating hazardous exposures where feasible; (2) using engineering and administrative controls to minimize hazardous exposures that cannot be eliminated; and (3) using respiratory protection and other personal protective equipment when the frequency and duration of exposures cannot be substantially reduced or eliminated.

The purpose of this respiratory protection program (RPP) is to maximize the protection afforded by respirators when they must be used. It establishes the procedures necessary to meet the regulatory requirements described in OSHA's [Respiratory Protection standard \(29 CFR 1910.134\)](#)

This program applies to all employees and contracted healthcare staff who are required to wear respiratory protection due to the nature of their work at Mary Greeley Medical Center. It applies to the use of air-purifying respirators, including filtering facepiece respirators (N-95). Follow protocols for contracted staff as defined in Administrative Operational Policy GEN030, Orientation/Competence Assessment/Attendance Plan.

2.0 Responsibilities

2.1 Respirator Program Administrator

The Occupational Health Coordinator and an Infection Preventionist have been designated as the respirator program co-administrators (RPAs). The RPAs have received appropriate training and are knowledgeable about the requirements of the OSHA Respiratory Protection standard and all elements of the respiratory protection program that need to be implemented to be effective. Hospital administration has the ultimate responsibility for all aspects of this program and has given the RPAs full authority to make the necessary decisions to ensure its success. This authority includes, but is not limited to, conducting hazard assessments for selecting appropriate respiratory protection, purchasing the necessary equipment and supplies, and developing and implementing the policies and procedures described in the written RPP.

Specifically, the RPA or other staff in conjunction with the RPA will, in accordance with OSHA's [Respiratory Protection standard \(29 CFR 1910.134\)](#) (responsible party noted in brackets):

- Conduct a hazard assessment and select the appropriate level of respiratory protection for each task or job title with potential exposure and record this information in the "Respirator Assignments by Task or Location" in Appendix A of this RPP. [Occupational Health Coordinator]
- Develop and monitor respirator maintenance procedures. [Biomedical Department]
- Coordinate the purchase, maintenance, repair, and replacement of respirators. [Infection Prevention, Supply Chain, and Biomedical Department]
- Routinely evaluate the effectiveness of the RPP, with employee input, and make any necessary changes to the program. [Infection Prevention and Occupational Health Coordinator]
- Provide or arrange for annual training on the use and limitations of respirators. [Nursing Professional Practice/Education, Infection Prevention, and Occupational Health Coordinator]
- Ensure that medical evaluations are provided. [Occupational Health Coordinator]
- Ensure that annual respirator fit testing is provided. [Individual Departments]
- Maintain records of respirator training, medical clearance, and fit testing as required by [29 CFR 1910.134](#) and [29 CFR 1910.1020](#). [Education Department and Occupational Health Coordinator]
- Maintain a copy of this written RPP and program evaluations, and ensure that they are readily accessible to anyone in the program. [Infection Prevention]

2.2 Supervisors

Managers of employees included in the RPP will:

- Participate in the hazard assessment by evaluating all potential exposures to respiratory hazards, including exposure to chemicals and aerosol transmissible disease (ATD) pathogens, and communicating this information to the RPAs.
- Identify employees and/or tasks for which respirators may be required and communicate this information to the RPAs.
- Be responsible for ensuring that employees in their units follow the procedures outlined in the RPP. Schedule employees for medical evaluations, training, and fit testing and ensure that they are allowed to attend these appointments during work hours.

2.3 Employees in the Program

Employees assigned to jobs/tasks requiring the use of a respirator will:

- Complete the required questionnaire for medical clearance and participate in a medical examination if necessary.
- Adhere to hospital policies on facial hair and respirator seal protection.
- Complete annual training and respirator fit testing as required in the RPP.
- Use, maintain, and dispose of respirators properly in accordance with training and the procedures in the RPP.

3.0 Respirator Selection

3.1 Hazard Assessment

The RPA will select the types of respirators to be used by hospital staff based on the hazards to which employees may be exposed and in accordance with OSHA regulations and Centers for Disease Control and Prevention (CDC), Healthcare Infection Control Practices Advisory Committee (HICPAC), and other public health guidelines. With input from the respirator user, the RPA and supervisor will conduct a hazard assessment for each task, procedure, or work area with the potential for airborne contaminants. The hazard assessment will include the following as needed:

- Identification of potential exposures. The most common potential exposure for employees involved in patient care will be pathogens associated with airborne-transmittable diseases (ATD) such as tuberculosis. Maintenance, housekeeping, laboratory, pharmacy, or other staff may have the potential to be exposed to hazardous gases, vapors, or dusts in addition to ATD pathogens.
- A review of work processes to determine levels of potential exposure for all tasks and locations.
- Quantification or objective determination of potential exposure levels, where possible. This may not be feasible for ATD pathogens.

3.2 NIOSH-Certified Equipment

All respiratory protective equipment shall be approved by the National Institute for Occupational Safety and Health (NIOSH) for the configuration and environment in which it is going to be used. The NIOSH Certified Equipment List is found at the following Internet address: www.cdc.gov/niosh/npptl/topics/respirators/cel.

The following definitions apply to equipment that may be issued to employees under this program:

- **Air-purifying respirators (APR)** are respirators with a filter, canister, or cartridge that removes specific air contaminants from the ambient air by passing through an air-purifying element. APRs must have been tested and approved by NIOSH for use in specific types of contaminated

atmospheres. These respirators do not supply oxygen and therefore cannot be used to enter an atmosphere that is oxygen-deficient.

- **Filtering facepiece respirators (FFR)** are disposable, negative-pressure, air purifying respirators where an integral part of the facepiece or the entire facepiece is made of filtering material. These respirators are designed to be used once and then properly disposed. For infection control reasons, employees should discard FFRs between patients. An N95 FFR has a filter efficiency of 95% and is not resistant to oil, while a P100 FFR has a filter efficiency of 99.97% and has a strong resistance to oil. Filters with other combinations of filtration efficiency and oil resistance, “N”, “R” or “P”, categories are available.
- **Half mask elastomeric respirators** are reusable air-purifying respirators that fit over the nose and mouth. They are made of rubber or silicone with attached cartridges or filters for removal of gases, vapors, or dusts.
- **N95 respirator** is a generally used term for a half mask negative pressure air-purifying respirator with NIOSH-approved N95 filters or filter material (i.e., includes N95 filtering facepiece respirator or equivalent protection).
- **Full facepiece elastomeric respirators** are reusable air-purifying respirators that cover the face from the forehead to the chin. They are made of rubber or silicone with a clear plastic lens and have attached cartridges or filters for removal of gases, vapors, or dusts.
- **Powered air-purifying respirators (PAPR)** and **Controlled air-purifying respirators (CAPR)** are air-purifying respirators that use a blower to force ambient air through air-purifying elements/filters and into the respirator facepiece, helmet, or hood.

3.3 Assignment of Respirators by Task and Location

The RPA will use the hazard assessment to assign appropriate types of respirators for use by specific types of personnel during specific procedures or in specific areas of the hospital. These assignments are listed in Appendix A of this RPP.

3.4 Updating the Hazard Assessment

The RPA will revise and update the hazard assessment any time an employee or supervisor identifies or anticipates a new exposure or changes to existing exposures. Any employee who believes that respiratory protection is needed during a particular activity must contact his or her supervisor or the RPA. The supervisor must contact the RPA whenever respiratory protection is requested. The RPA will assess the potential hazard with the employee and supervisor. If it is determined that respiratory protection is needed, all elements of this program will be in effect for those tasks and the program will be updated accordingly.

4.0 Medical Evaluation

Employees whose work activities require the use of respiratory protective equipment shall receive medical clearance prior to the use of a respirator and prior to being fit tested for a respirator.

Initial medical evaluations will be performed by a physician or other licensed health care professional (PLHCP), such as a registered nurse or physician’s assistant, at Mary Greeley Medical Center Occupational Health. To

ensure the confidentiality of medical information, the medical evaluation should not be conducted by the employee's immediate supervisor or others in the employee's direct line of authority. OSHA questionnaires will be completed by all respirator users during the new hire health assessment. OSHA questionnaires will also be completed by N-95 users on an annual basis prior to fit testing.

Before being assigned to work in an area where respirators are required, each employee will complete the OSHA questionnaire found in the Immuware portal. Employees may also speak directly with the PLHCP if they have questions. The PLHCP will be provided with a copy of the RPP, information from the RPA about the type of respiratory protection to be used by employees, duration and frequency of respirator use, expected physical effort, other protective equipment worn, and any expected extremes of temperature or humidity.

The PLHCP will review completed questionnaires and make a medical determination as to whether the employee can wear a respirator safely. The PLHCP may make this determination based on the questionnaire alone, but may also require an additional medical evaluation performed at McFarland Clinic Occupational Medicine. McFarland Occupational Medicine will provide a written recommendation to the employee and employer, which may clear the employee for all respirator use, or may specify restrictions or limitations on use, such as the type of respirator that may be worn, the duration that it may be worn, and the acceptable level of exertion while wearing the respirator. A copy of this written determination shall also be provided by the PLHCP to the employee.

An additional medical evaluation is required and will be performed at McFarland Clinic Occupational Medicine when:

- The employee reports medical signs or symptoms that are related to the ability to use a respirator.
- A PLHCP, supervisor, or the RPA requests a reevaluation.
- Observations made during fit testing or program evaluation indicate a need for reevaluation (e.g., the employee experiences claustrophobia or difficulty breathing during the fit test).
- A change occurs in workplace conditions (e.g., physical work effort, protective clothing, or temperature) that may result in a substantial increase in the physiological burden placed on an employee wearing a respirator.

****Please note- Even after you have been medically cleared to use a respirator on the job there will be times when you will have to be reevaluated by a physician or licensed healthcare professional.****

You must be reevaluated when:

- You report medical signs or symptoms that are related to your ability to use a respirator, such as a heart condition, lung disease, or claustrophobia;
- A physician or licensed healthcare professional, your supervisor, or the respirator program administrator informs your employer that you need to be reevaluated;
- Information from the respiratory protection program, including observations made during fit testing and program evaluation, indicates a need for you to be reevaluated; or
- A change occurs in workplace conditions that increases the burden on you while using the respirator; for example your job becomes more physically demanding, or you must wear additional protective clothing, or you must work in extreme temperatures.

5.0 Fit Testing

Before an employee is required to use any respirator with a tight-fitting facepiece (anything except a PAPR/CAPR with loose-fitting facepiece, hood, or helmet that does not rely upon a tight-fitting facepiece-to-face seal), she/he will be fit tested by a trained departmental fit tester. Fit testers will be trained annually on fit testing and port-a-count use. Fit-testing will be conducted with a hospital-approved and provided respirator of the same make, model, style, and size of respirator to be used. Employees who use tight-fitting respirators are not permitted to have facial hair that interferes with the facepiece seal or valve function.

All employees who must wear respiratory protection shall receive medical clearance before fit testing is performed or the respirator is worn. Fit tests will be provided at the time of initial assignment and annually thereafter. Additional fit tests will be provided whenever the employee experiences or the manager or RPA observes physical changes that could affect respirator fit. These changes include, but are not limited to, facial scarring, dental changes, cosmetic surgery, or an obvious change in body weight.

Employees who will be using only a CAPR/PAPR with loose-fitting facepiece, hood, or helmet do not need to be fit tested. Any employee who cannot be successfully fit tested with a tight-fitting respirator may be assigned a CAPR/PAPR with a loose-fitting facepiece, hood, or helmet for all tasks requiring a respirator. If an employee is not able to wear a CAPR/PAPR or the CAPR/PAPR is not appropriate for his/her work area (e.g., use with sterile fields), departmental leadership may reassign the employee to an area without exposure.

Employees will be offered a selection of several models and sizes of respirators from which they may choose the one that correctly fits and is most acceptable/comfortable.

A quantitative ambient aerosol condensation nuclei counter (CNC) fit testing protocol will be used. The quantitative test will follow the protocol for the Port-a-count found in [Appendix A of the OSHA Respiratory Protection standard](#) (29 CFR 1910.134) and in Appendix C of this RPP.

6.0 Training

Annual respirator training will be provided for all employees covered by this program. The training includes the following:

- The general requirements of the OSHA Respiratory Protection standard.
- The specific circumstances under which respirators are to be used.
- Respiratory hazards to which employees are potentially exposed during routine and emergency situations.
- Why the respirator is necessary and how proper fit, usage, and maintenance can ensure the protective effect of the respirator as well as how improper fit, usage or maintenance can compromise the protective effect of the respirator.
- The limitations and capabilities of the respirators that will be used.
- How to effectively use the respirators, including situations in which the respirator malfunctions.
- How to inspect, put on, remove, use, and check the seals of the respirator (for tight-fitting respirators such as N95 filtering facepiece respirators).
- The procedures outlined in this program for maintenance, storage, and cleaning or disposal of respirators. Employees who are issued CAPR/PAPRs shall be instructed in procedures for charging and maintaining the batteries, and for checking the air flow rate.
- How to recognize medical signs and symptoms that may limit or prevent the effective use of respirators.

- How and when to decontaminate (or safely dispose of) a respirator that has been contaminated with chemicals or hazardous/infectious biological materials.

Training shall be provided at the time of initial assignment to respirator use, but before actual use, and annually thereafter.

Additional training will be provided when there is a change in the type of respiratory protection used, or when inadequacies in the employee's knowledge or use of the respirator indicate that he or she has not retained the requisite understanding or skill.

The employee will also receive training during the fit testing procedure that will provide an opportunity to handle the respirator, have it fitted properly, test its facepiece-to-face seal, wear it in normal air to familiarize themselves with the respirator, and finally to wear it in a test atmosphere. Every N-95 respirator wearer will receive fitting instructions, including demonstrations and practice in how the respirator should be worn, how to adjust it, and how to perform a user seal check according to the manufacturer's instructions (see Appendix D of this RPP). [Mary Greeley Standard Work Documents instruct users in proper respirator use.](#)

Employees will be given the opportunity during training, annual retraining and throughout the year to provide feedback on the effectiveness of the program and suggestions for its improvement. The program evaluation is located at the end of the OSHA questionnaire found in the Immaware portal (see Appendix F of this RPP). This shall help illicit concerns/opportunities for improvement. Bi-annual Environment of Care rounding on each unit will also assess staff knowledge on ability to locate and properly use a respirator. If an issue is identified and it is determined that additional education is necessary, training may be added to the annual competency (e.g., hands-on training for CAPR, etc.).

7.0 Respirator Use

Employees will follow procedures for proper use of their respirators under conditions specified by this program and in accord with the training they receive on the use of each model or type of respirator. The appropriate types of respirators to be used and the exposure conditions are listed in the respirator selection chart in Appendix A of this RPP.

Respirators relying on a tight facepiece-to-face seal must not be worn when conditions prevent a good seal. Such conditions may be a beard, long moustache, sideburns, or even razor stubble as well as scars, other facial deformities, piercings, and temple pieces on glasses. In addition, the absence of one or both dentures can seriously affect the fit of a facepiece.

Employees and supervisors are expected to be diligent in observing practices pertaining to ensuring the safe use of respirators. To ensure proper protection, the wearer will perform a user seal check, in accord with manufacturer's instructions and the training provided at the time of fit testing, each time he or she puts on a tight-fitting respirator. Employees who wear corrective glasses or other personal protective equipment must wear these during their fit testing to ensure that it does not interfere with the facepiece seal.

When filtering facepiece respirators are used, respirators should be discarded after each use or sooner if breathing becomes difficult or if the respirator is damaged, soiled, or contaminated. Employees must leave the respirator use area:

- To adjust their respirator if the respirator is not fitting correctly or impeding their ability to work.
- To wash their face if the respirator is causing discomfort or rash.
- To change the respirator or filters.

- To inspect the respirator if it stops functioning as intended, such as detection of vapor or gas breakthrough, changes in breathing resistance or leakage of the facepiece (e.g., fogging of eyeglasses).

8.0 Storage, Reuse, Maintenance and Care of Respirators

8.1 Storage and Reuse

Reusable respirators (CAPR/PAPR) will be stored in a manner to protect them from damage, contamination, dust, sunlight, extreme temperatures, excessive moisture, and damaging chemicals.

When caring for infectious patients, disposable filtering facepiece respirators (N95s) will be discarded after each use (i.e., patient encounter). This reduces contact transmission which may occur during the don/doff process. Only in the event of a supply shortage that is communicated to staff is reuse by the *same* wearer in the care of the *same* patient acceptable assuming the filtering facepiece respirator is not damaged or soiled. In the event of a supply shortage where the disposable filtering facepiece respirator is reused, it should be stored in a breathable container such as a paper bag labeled with the user's name and patient location. The respirator must be discarded when it is no longer in its original working condition, whether that condition results from contamination, structural defects, or wear.

Reusable elastomeric respirators that are assigned to individual users will be cleaned and disinfected/sterilized after use and stored at room temperature in a dry area that is protected from exposure to hazardous contaminants, as per the manufacturer's instructions.

CAPR/PAPRs will be cleaned and stored after use in the CAPR carts in Central Stores/Supply Chain Management. For quick access, ED, ACS, and Lab also maintain a CAPR in a tote or cart on their respective unit. CAPR/PAPRs must be stored at room temperature in a dry area that is protected from exposure to hazardous contaminants as per the manufacturer's instructions. CAPR/PAPRs are provided to employees upon request through EPIC to prevent exposure to hazardous drugs and aerosol transmissible disease (ATD) pathogens as well as use during aerosol-generating procedures being conducted on patients with suspected or confirmed airborne infectious disease, or for use by individuals who are unable to wear a respirator with a tight-fitting facepiece.

8.2 Inspection, Maintenance and Repairs

All respirators will be inspected by the user prior to each use. Inspections should include a check of:

- Condition of the various parts including, but not limited to, the facepiece, head straps, valves, or filters.
- All rubber or plastic parts, for pliability and signs of deterioration.
- CAPR/PAPR connecting tubes or hoses, air flow, and battery supply.

Any defective respirators shall be removed from service. Defective disposable respirators will be discarded and replaced. Defective reusable respirators will be turned in to the BioMedical Department for repair, adjustment, or disposal.

BioMed and Stores are responsible for charging and maintaining CAPR/PAPR pumps, filters, and batteries when they are stored or not in use.

Filters on CAPR will be changed by the BioMedical Department if it becomes difficult to breathe, or if the LED indicator is yellow.

For respirators maintained for emergency use, the Emergency Management Coordinator, in conjunction with BioMed, must:

- Keep respirators accessible to the work area.
- Store respirators in such a manner as to be clearly marked for emergency use.
- Store respirators in accordance with any applicable manufacturer instructions.
- Inspect respirators in accordance with the manufacturer's recommendations.
- Check for proper function before and after each use.
- Certify the respirator with documentation of date of inspection, inspector name/signature, findings, remedial action taken if necessary, and serial number.
- Provide certification information on a tag or label kept with the respirator or included in inspection reports stored as paper or electronic files.

8.3 Cleaning and Disinfection

CAPR/PAPRs will be cleaned with hospital-approved disinfectant by the employee and air dried before storing in cart or tote for reuse, as described in the Standard [Work Document](#).

Reusable respirators used in training will be cleaned and disinfected after each use.

9.0 Program Evaluation

The RPA will conduct a periodic evaluation of the RPP to ensure that all aspects of the program meet the requirements of the OSHA Respiratory Protection standard and that the RPP is being implemented effectively to protect employees from respiratory hazards. This evaluation will be done regularly with the TB Risk Assessment, and as necessary.

Program evaluation will include, but is not limited to:

- A review of the written program by the RPA.
- A review of feedback obtained from employees (to include respirator fit, selection, use, and maintenance issues) that will be collected during the annual fit-testing session (see Appendix F of this RPP), and during Environment of Care rounding.

The RPP will be revised as necessary and records of revisions will be kept on file with the written program. Any procedural changes that are implemented as a result of program evaluation will be communicated to the employees and reinforced by their supervisors.

10.0 Recordkeeping

The RPA will ensure that the following records are maintained:

- Personnel medical records such as medical clearance to wear a respirator shall be retained by Mary Greeley Medical Center Occupational Health and stored in the Human Resources Department as part of a confidential medical record. Medical clearance records must be made available in accord with the OSHA Access to Employee Exposure and Medical Records standard ([29 CFR 1910.1020](#)), and maintained for a minimum of thirty (30) years after an employee's separation or termination.
- Documentation of training and fit testing will be kept by the employee's department manager until the next training or fit test.
- This RPP and revisions shall be maintained by Infection Prevention Department within the Infection Control Manual in Policy Medical. Records of program evaluations and revisions shall

be recorded in the annual TB Risk Assessment and made available to all affected employees, their representatives, and representatives of OSHA upon request.

REFERENCES

Occupational Safety and Health Standards (OSHA). Standard 1910.134 "Respiratory Protection." (2019).

Occupational Safety and Health Standards (OSHA). Standard 1910.134 App A "Fit Testing Procedures (Mandatory)." (2004).

Occupational Safety and Health Standards (OSHA). Standard 1910.134 App B-1 "User Seal Check Procedures (Mandatory)." (1998).

Occupational Safety and Health Standards (OSHA). Standard 1910.134 App B-2 "Respiratory Cleaning Procedures (Mandatory)." (1998).

APPROVAL

Infection Prevention Committee 5/22

Reviewed: 1/25

RPP Appendix A: Respirator Assignments by Task or Location

Task or Location	Potential Exposure	Respiratory Protection	Employees Included
<p>Performing aerosol-generating procedures on patients suspected or confirmed with a disease requiring Airborne Precautions (e.g., TB, influenza, measles, COVID-19) or present when such procedures are performed including:</p> <ul style="list-style-type: none"> • Sputum induction • Bronchoscopy • Aerosolized administration of medications • Pulmonary function testing • Other clinical procedures that may aerosolize infectious agents 	Infectious aerosols	N95 respirator or CAPR/PAPR	Respiratory Therapist, X-ray technicians assisting in bronchoscopy procedures, Direct patient care staff
Entry into airborne infection isolation room or other area occupied by patients suspected or confirmed with a disease requiring Airborne Precautions.	Infectious aerosols	N95 respirator or CAPR/PAPR	Direct patient care staff, Laboratory, Environmental Service Workers, Facilities, Infection Prevention, Chaplain Services, Radiology, In-patient Rehab/Wellness, Transporters
Performing, or present during, routine patient care and support operations on a patient suspected or confirmed with a disease requiring Airborne Precautions.	Infectious aerosols	N95 respirator or CAPR/PAPR	All direct patient care staff, Laboratory, Environmental Service Workers, Facilities
Cleaning/decontaminating an area occupied by a patient suspected or confirmed with a disease requiring Airborne Precautions, or cleaning/decontaminating such an area after a patient has left but before the space has been adequately ventilated.	Infectious aerosols	N95 respirator or CAPR/PAPR	Direct patient care staff, Environmental Service Workers, Facilities
Laboratory operations involving aerosol transmissible disease pathogens [<i>see HICPAC 2007</i>] for which the biosafety plan requires respiratory protection	Infectious aerosols	N95 respirator	Microbiology

RPP Appendix C: Selected Fit Test Protocols

Appendix A to Sec.1910.134: Fit Testing Procedures (Mandatory)

Part I. OSHA-Accepted Fit Test Protocols

A. Fit Testing Procedures--General Requirements.

The employer shall conduct fit testing using the following procedures. The requirements in this appendix apply to all OSHA-accepted fit test methods, both QLFT and QNFT.

1. The test subject shall be allowed to pick the most acceptable respirator from a sufficient number of respirator models and sizes so that the respirator is acceptable to, and correctly fits, the user.
2. Prior to the selection process, the test subject shall be shown how to put on a respirator, how it should be positioned on the face, how to set strap tension and how to determine an acceptable fit. A mirror shall be available to assist the subject in evaluating the fit and positioning of the respirator. This instruction may not constitute the subject's formal training on respirator use, because it is only a review.
3. The test subject shall be informed that he/she is being asked to select the respirator that provides the most acceptable fit. Each respirator represents a different size and shape, and if fitted and used properly, will provide adequate protection.
4. The test subject shall be instructed to hold each chosen facepiece up to the face and eliminate those that obviously do not give an acceptable fit.
5. The more acceptable facepieces are noted in case the one selected proves unacceptable; the most comfortable mask is donned and worn at least five minutes to assess comfort. Assistance in assessing comfort can be given by discussing the points in the following item A.6. If the test subject is not familiar with using a particular respirator, the test subject shall be directed to don the mask several times and to adjust the straps each time to become adept at setting proper tension on the straps.
6. Assessment of comfort shall include a review of the following points with the test subject and allowing the test subject adequate time to determine the comfort of the respirator.
 - (a) Position of the mask on the nose
 - (b) Room for eye protection
 - (c) Room to talk
 - (d) Position of mask on face and cheeks
7. The following criteria shall be used to help determine the adequacy of the respirator fit:
 - (a) Chin properly placed;
 - (b) Adequate strap tension, not overly tightened;
 - (c) Fit across nose bridge;

(d) Respirator of proper size to span distance from nose to chin;

(e) Tendency of respirator to slip;

(f) Self-observation in mirror to evaluate fit and respirator position.

8. The test subject shall conduct a user seal check, either the negative and positive pressure seal checks described in Appendix D or those recommended by the respirator manufacturer which provide equivalent protection to the procedures in Appendix D. Before conducting the negative and positive pressure checks, the subject shall be told to seat the mask on the face by moving the head from side-to-side and up and down slowly while taking in a few slow deep breaths. Another facepiece shall be selected and retested if the test subject fails the user seal check tests.

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

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

11. If the employee finds the fit of the respirator unacceptable, the test subject shall be given the opportunity to select a different respirator and to be retested.

12. Exercise regimen. Prior to the commencement of the fit test, the test subject shall be given a description of the fit test and the test subject's responsibilities during the test procedure. The description of the process shall include a description of the test exercises that the subject will be performing. **The respirator to be tested shall be worn for at least 5 minutes before the start of the fit test.**

13. The fit test shall be performed while the test subject is wearing any applicable safety equipment that may be worn during actual respirator use which would interfere with respirator fit.

14. Test Exercises.

(a) Employers must perform the following test exercises for all fit testing methods prescribed in this appendix, except for the CNP quantitative fit testing protocol and the CNP REDON quantitative fit testing protocol. For these two protocols, employers must ensure that the test subjects (i.e., employees) perform the exercise procedure specified in Part I.C.2(b) of this appendix for the CNP quantitative fit testing protocol, or the exercise procedure described in Part I.C.(b) of this appendix for the CNP REDON quantitative fit-testing protocol. For the remaining fit testing methods, employers must ensure that employees perform the test exercises in the appropriate test environment in the following manner:

(1) Normal breathing. In a normal standing position, without talking, the subject shall breathe normally.

(2) Deep breathing. In a normal standing position, the subject shall breathe slowly and deeply, taking caution so as not to hyperventilate.

(3) 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.

(4) Moving head up and down. Standing in place, the subject shall slowly move his/her head up and down. The subject shall be instructed to inhale in the up position (i.e., when looking toward the ceiling).

(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, 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.

(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).

(b) 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.

C. Quantitative Protocols (QNFT) – Follow the N95 Fit Testing Standard Work located within Policy Medical

1. General

(a) The employer shall ensure that persons administering QNFT are able to calibrate equipment and perform tests properly, recognize invalid tests, calculate fit factors properly and ensure that test equipment is in proper working order.

(b) The employer shall ensure that QNFT equipment is kept clean and is maintained and calibrated according to the manufacturer's instructions so as to operate at the parameters for which it was designed.

2. Ambient Aerosol Condensation Nuclei Counter (CNC) Quantitative Fit Testing Protocol

(a) Port-a-count Fit Test Requirements.

(1) Check the respirator to make sure the sampling probe and line are properly attached to the facepiece and that the respirator is fitted with a particulate filter capable of preventing significant penetration by the ambient particles used for the fit test (e.g., NIOSH 42 CFR 84 series 100, series 99, or series 95 particulate filter) as per the manufacturer's instruction.

(2) Instruct the person to be tested to don the respirator for five minutes before the fit test starts. This purges the ambient particles trapped inside the respirator and permits the wearer to make certain the respirator is comfortable. This individual shall already have been trained on how to wear the respirator properly.

(3) Check the following conditions for the adequacy of the respirator fit: Chin properly placed; Adequate strap tension, not overly tightened; Fit across nose bridge; Respirator of proper size to span distance from nose to chin; Tendency of the respirator to slip; Self-observation in a mirror to evaluate fit and respirator position.

(4) Have the person wearing the respirator do a user seal check. If leakage is detected, determine the cause. If leakage is from a poorly fitting facepiece, try another size of the same model respirator, or another model of respirator.

(5) Follow the manufacturer's instructions for operating the Port-a-count and proceed with the test. A Standard Work Document is available.

(6) The test subject shall be instructed to perform the exercises in section I. A. 14. of this appendix.

(7) After the test exercises, 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.

(b) Port-a-count Test Instrument.

(1) The Port-a-count will automatically stop and calculate the overall fit factor for the entire set of exercises. The overall fit factor is what counts. The Pass or Fail message will indicate the success of the test. If the test was a Pass, the fit test is over.

(2) Since the pass or fail criterion of the Port-a-count is user programmable, the test operator shall ensure that the pass or fail criterion meet the requirements for minimum respirator performance in this Appendix.

(3) A record of the test needs to be kept on file, assuming the fit test was successful. The record must contain the test subject's name; overall fit factor; make, model, style, and size of respirator used; and date tested.

RPP Appendix D: User Seal Check Procedures

Appendix B-1. to Sec. 1910.134: 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. Facepiece Positive and/or Negative Pressure Checks.

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

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

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.

RPP Appendix E: Respirator Cleaning Procedures

Appendix B-2. to Sec. 1910.134: PAPR Cleaning Procedures (Mandatory)

These procedures are provided for employer use when cleaning PAPRs and are general in nature. In the event of a discrepancy, follow the cleaning recommendations provided by the manufacturer of the respirators used, provided such procedures ensure that the respirator is properly cleaned and disinfected in a manner that prevents damage to the respirator and does not cause harm to the user.

I. Procedures for Cleaning PAPRs.

A. Remove filters, cartridges, or canisters. Disassemble facepieces by removing speaking diaphragms, demand and pressure-demand valve assemblies, hoses, or any components recommended by the manufacturer. Discard or repair any defective parts.

B. Wash components in warm (43 deg. C [110 deg. F] maximum) water with a mild detergent or with a cleaner recommended by the manufacturer. A stiff bristle (not wire) brush may be used to facilitate the removal of dirt.

C. Rinse components thoroughly in clean, warm (43 deg. C [110 deg. F] maximum), preferably running water. Drain.

D. When the cleaner used does not contain a disinfecting agent, respirator components should be immersed for two minutes in one of the following:

1. Hypochlorite solution (50 ppm of chlorine) made by adding approximately one milliliter of laundry bleach to one liter of water at 43 deg. C (110 deg. F); or,

2. Aqueous solution of iodine (50 ppm iodine) made by adding approximately 0.8 milliliters of tincture of iodine (6-8 grams ammonium and/or potassium iodide/100 cc of 45% alcohol) to one liter of water at 43 deg. C (110 deg. F); or,

3. Other commercially available cleansers of equivalent disinfectant quality when used as directed, if their use is recommended or approved by the respirator manufacturer.

E. Rinse components thoroughly in clean, warm (43 deg. C [110 deg. F] maximum), preferably running water. Drain. The importance of thorough rinsing cannot be overemphasized. Detergents or disinfectants that dry on facepieces may result in dermatitis. In addition, some disinfectants may cause deterioration of rubber or corrosion of metal parts if not completely removed.

F. Components should be hand-dried with a clean lint-free cloth or air-dried.

G. Reassemble facepiece, replacing filters, cartridges, and canisters where necessary.

H. Test the respirator to ensure that all components work properly.

RPP Appendix F: Respiratory Protection Program Evaluation

Date: _____

Unit: _____

<u>QUESTION</u>	<u>YES</u>	<u>NO</u>	<u>N/A</u>
1. Is your N-95/CAPR mask readily available when you need it?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Do you know where/how to locate a respirator?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Is the quality of your N-95/CAPR mask acceptable?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Does your N-95/CAPR mask function as needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Please list any concerns or opportunities for improvement below:			

Please complete and return in sealed envelope with OSHA Short Form to Occupational Health.

Thank you.