

Respiratory Protection Program - 5200-2.0

Associated OHS Process: Industrial Hygiene

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1. Summary

1.1 Objective

The Respiratory Protection Program provides policies, procedures, and requirements for respiratory protection to eliminate or minimize University of Virginia-Facilities Management (UVA-FM) employee exposure to hazardous airborne contaminants while performing work assignments.

1.2 Scope

The Respiratory Protection Program covers UVA-FM employees who are required to use respiratory protection during their employment with UVA-FM. Employees who are not required to wear respiratory protection but choose to voluntarily wear a National Institute for Occupational Safety & Health (NIOSH) approved filtering facepiece respirators (FFRs) are not included in the Respiratory Protection Program. However, they shall read and sign the *Voluntary Use of Respiratory Protection Agreement* form.

2. Regulations & Other Requirements

2.1 Occupational Safety & Health Administration

This Respiratory Protection Program complies with Occupational Safety & Health Administration (OSHA) 29 CFR 1910.134 and 1926.103 *Respiratory Protection*.

2.2 University of Virginia

This Respiratory Protection Program complies with UVA-FM requirements specifically with [UVA Facilities Management COVID-19 On-Grounds Work Guidelines](#).

2.3 The National Institute for Occupational Safety & Health

This Respiratory Protection Program complies with National Institute for Occupational Safety & Health (NIOSH) requirements [For Respirator Users](#) when it is applicable.

2.4 American National Standards Institute

This Respiratory Protection Program complies with American National Standards Institute (ANSI)/ American Society of Safety Engineers (ASSE) Z 88.2 2015, American National Standard Practices for Respiratory Protection when it is applicable.

2.5 American Conference of Governmental Industrial Hygienists

The Respiratory Protection Program may use American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values (TLVs) as a best practice of comparing air sampling results when it is applicable.

3. Roles and Responsibilities

The Respiratory Protection Program for UVA-FM is a cooperative effort among FM-Occupational Health Safety (FM-OHS), physicians or other licensed healthcare providers (PLHCP), FM supervisors, and FM respirator wearer. Specific responsibilities relating to the Respiratory Protection Program are outlined below.

3.1 Facilities Management Occupational Health & Safety

Specific responsibilities of FM-OHS relating to respiratory protection are to:

- a) Administer the FM Respiratory Protection Program.
- b) Conduct a respiratory hazard assessment.
- c) Conduct air sampling as needed, to determine required use of respiratory protection
- d) Assist FM supervisors with completing the *Respirator Use Information* form for all employees required to wear respiratory protection.
- e) Coordinate with FM supervisors and employees to determine appropriate respiratory protection.
- f) Provide a copy of OSHA 29 CFR 1910.134 Appendix D, (Mandatory) *Information for Employees Using Respirators When Not Required under Standard*
- g) Provide PLHCP conducting medical evaluations for respiratory protection use with a copy of the following (if not already on file):
 - OSHA 29 CFR 1910.134
 - FM's Respiratory Protection Program
- h) Provide the online MedExpress Respirator Medical Evaluation Questionnaire to employees required to wear respiratory protection
- i) Coordinate the required follow-up medical examination
- j) Provide employees required to undergo in person medical evaluations with a copy of the OSHA Respirator Medical Evaluation Questionnaire
- k) Pay all costs associated with on-line respirator medical evaluations
- l) Provide Respirator New User training to employees
- m) Provide 1:1 respirator fit test and training to employees deemed fit by PLHCP to use respiratory protection prior to use and annually thereafter
- n) Issue fit test cards to employees upon successful completion of respirator fit test and training
- o) Notify FM Supervisor in writing of the type of respiratory protection required
- p) Clean, inspect, maintain, and store respiratory protection used for fit testing and training after each use according to 29 CFR 1910.134
- q) Keep training records for duration of employment
- r) Maintain training materials, program evaluation records, a current copy of the written Respiratory Protection Program, and copies of Worksite-Specific Procedures for Use of Respiratory Protection
- s) Collaborate with developing and reviewing of Worksite-Specific Procedures for Use of Respiratory Protection
- t) Annually evaluate the Respiratory Protection Program and revise this program as needed
- u) Maintain TSI PortaCount Pro+8038 & particle generator annual calibration
- v) Maintain 3M Qualitative Fit Testing Kit
- w) Maintain inventory of FM-OHS respirators and fit testing accessories

3.2 Physician or Other Licensed Healthcare Provider

A physician or other licensed healthcare professional (PLHCP) is an individual whose legally permitted scope of practice (i.e., license, registration, or certification) allows their to independently

provide, or be delegated the responsibility to provide, some or all of the health care services required by paragraph 29 CFR 1910.134 (e). FM-OHS use MedExpress for initial respirator medical evaluation and UVA-WorkMed for follow-up medical examinations.

3.2.1 Specific responsibilities of MedExpress related to the Respiratory Protection Program are to:

- a) Review the online completed OSHA Respirator/MedExpress Respirator Medical Evaluation Questionnaire determine employee fitness to use respiratory protection
- b) Provide a written opinion of evaluation and keep records of it
- c) Discuss the OSHA Respirator /MedExpress Respirator Medical Evaluation Questionnaire with employees upon request

3.2.2 Specific responsibilities of UVA-WorkMed related to the Respiratory Protection Program are to:

- a) Discuss the OSHA Respirator Medical Evaluation Questionnaire with employees upon request of follow-up medical examination (Approval Deferred)
- b) Provide follow-up medical examinations or a referral to an appropriate PLHCP
- c) Provide a written opinion to the employee and a copy to FM-OHS within 15 days reasonable of evaluation
- d) Keep records of written opinion

3.3 Facilities Management Supervisors

Supervisors oversee UVA-FM employees and their work. Specific responsibilities of supervisors related to the Respiratory Protection Program are to:

- a) Inform FM-OHS if the need for respiratory protection is suspected prior to beginning work
- b) Work with FM-OHS to determine if any engineering or administrative controls are feasible to control the airborne contaminant
- c) Develop and review Worksite-Specific Procedures for Use of Respiratory Protection (for use in conjunction with the Respiratory Protection Program)
- d) Provide FM-OHS with a completed copy of the *Respirator Use Information* form for each employee who is required to uses a respirator
- e) Provide employees with respiratory protection per FM-OHS recommendations
- f) Issue respiratory protection to employees that are medically able to wear respiratory protection (per PLHCP written opinion), have completed New Respirator User training and have been successfully fit tested with the make, model, and size used
- g) If an employee wears corrective glasses, goggles, or other personal protective equipment, the supervisor shall make sure that such equipment is worn in a manner that does not interfere with the seal of the facepiece
- h) Make sure an adequate supply of respiratory protective equipment and accessories in good, clean, working condition
- i) Inform FM-OHS of changes in workplace conditions (workload, protective clothing, or temperature) and work processes (new chemical) that may result in substantial increase in physiological burden placed on an employee
- j) Inform FM-OHS of visual changes in employee's physical condition that could affect respirator fit (e.g. facial scarring, dental changes, cosmetic surgery, or change in body weight)

- k) Inform FM-OHS when employees are no longer required to be enrolled in the Respiratory Protection Program, providing FM-OHS with a completed *Respiratory Protection Program Exit* form
- l) Provide an adequate supply of NIOSH approved filtering face pieces in good, clean condition to employees who are not required to wear a respirator but have selected voluntary use, including a range of sizes to assure that a proper fit may be achieved
- m) Pay all costs associated with follow-up examinations related to the use of respiratory protection

3.4 Facilities Management Respirator Wearers

Specific responsibilities of FM employees related to the Respiratory Protection Program are to:

- a) Complete the *Respirator Use Information* form
- b) Complete the online MedExpress Respirator Medical Evaluation Questionnaire
- c) Provide UVA-WorkMed a completed copy of the OSHA Respirator Medical Evaluation Questionnaire when needed.
- d) Schedule and attend required follow-up medical examinations
- e) Attend Respirator New User training upon entry into the Respiratory Protection Program
- f) Attend 1:1 respirator fit test and training upon entry into the Respiratory Protection Program and annually thereafter
- g) Only use respiratory protection for which you have obtained a satisfactory fit per fit testing conducted by FM-OHS.
- h) Notify supervisor if prescription glasses inserts/spectacles are required for use with full-face respiratory protection. As a best practice, employees should not wear contact lenses when wearing a respirator.
- i) Inspect respirators prior to each use
- j) Be clean-shaven during respirator use and fit testing, ONLY for tight-fitting respirator wearers.
- k) Conduct user seal checks prior to wearing a respirator.
- l) Use respirators in a manner that complies with instruction and training
- m) Clean, disinfect, inspect, and properly store assigned respirators
- n) Report respirator malfunctions to their supervisor
- o) Report physiological changes (e.g. facial scarring, dental changes, cosmetic surgery, or change in body weight) that could affect the respirator fit or ability to safely wear a respirator to FM-OHS
- p) Report changes in workplace condition (workload, protective clothing, or temperature) and processes (new chemical).
- q) Provide feedback for annual program evaluation as requested by FM-OHS

4. Respiratory Protection Program

4.1 Respiratory Hazard Assessment

FM-OHS will conduct respiratory hazard assessments through site visits, interviews with employees & supervisors, review records of historical data, Safety Data Sheets (SDSs) and air sampling as determined by FM-OHS.

4.1.1 FM-OHS program administrator will conduct a respiratory hazard assessment to evaluate the need for respiratory protection if:

- a) Anticipate a concern about employees' exposure to contaminated air such as harmful dusts, fogs, fumes, mists, gases, smokes, sprays or vapors and biological agents.
- b) Supervisor or employee notifies FM-OHS that the need for respiratory protection is suspected
- c) Supervisor or employee informs FM-OHS that the voluntary use of respiratory protection is desired.

4.1.2 Elements of the respiratory hazard assessment include:

- a) Determine the identity and concentrations of hazardous substances present in the environment by conducting exposure monitoring
- b) Identify and coordinate engineering or administrative controls to reduce the concentrations of hazardous substances in the work environment below applicable regulations and guidelines so respiratory protection is not required
- c) If controls do not reduce the exposure to acceptable levels, assist with determining appropriate respiratory protection

4.2 Respiratory Protection Selection

If feasible engineering or administrative controls are not sufficient to reduce air concentrations of hazardous substances below applicable exposure limits, FM-OHS program administrator and FM supervisors and employees will specify the respiratory protection required.

4.2.1 Collaborative effort of respiratory selection

FM-OHS program administrator, in conjunction with FM- supervisors and employees, will select the appropriate respiratory protection for the work area and determine whether the use of respiratory protection is mandatory or voluntary (Only for NIOSH approved filtering facepiece respirators).

Respiratory protection will be selected based on the results of

- a) Respiratory hazard assessment
- b) Air Sampling
- c) Applicable standards & SDSs
- d) Reviewing of tasks and processes and associated historical data

4.2.2 Recognition of using a respirator

Supervisors must contact FM-OHS when the need for respiratory protection is suspected. Examples of some tasks for which respiratory protection may be required could include:

- Cutting brick, cement, concrete
- Scraping mortar
- Cutting or jack hammering sidewalk or concrete slabs
- Generating large amounts of dust
- Welding or grinding
- Painting with epoxy or organic solvent coatings
- Using solvents, thinners, or degreasers
- Abrasive blasting
- Scraping or sanding lead paint
- Asbestos work

4.2.3 Evaluation of using a respirator

- a) FM-OHS program administrator will notify supervisors in writing when it is determined respiratory protection is required. This notification will include tasks for which respiratory protection is required, the type of respiratory protection and filtering media used, and the filtering media change-out schedule if needed.
- b) All respiratory protection used at the UVA-FM is certified by the National Institute for Occupational Safety & Health (NIOSH) and must be used in compliance with the conditions of certification.
- c) Supervisors must provide employees with respiratory protection per FM-OHS recommendations. Supervisors may reference the FM-OHS approved respirators list for respirator selection, located on the [FM-OHS website resources](#)

4.2.4 Ineligibility of using atmosphere-supplying respirators

UVA-FM employees are not permitted to wear atmosphere-supplying respirators. If a task cannot safely be completed without an atmosphere-supplying respirator, the task must be completed by a certified contractor who is capable of completing the task and is trained in the use of this type of respirator.

4.3 Procedures for Use of Respiratory Protection

4.3.1 Worksite-Specific Procedures

- a) FM-OHS program administrator and FM- supervisors and employees will jointly generate Worksite-Specific Procedures for Use of Respiratory Protection (Appendix C.1) to be used in conjunction with the Respiratory Protection Program for all routine use of respiratory protection. A copy of the Worksite-Specific Procedures for Use of Respiratory Protection will be reviewed by the supervisor prior to implementation and as requested by FM-OHS.
- b) Worksite-Specific Procedures for Use of Respiratory Protection includes:

- Location of the written Respiratory Protection Program
- Voluntary or required use of respiratory protection
- Respiratory hazards
- Location and nature of tasks that involve the respiratory hazards
- Types of respirators and filter cartridges required during tasks
- Frequency and duration of the tasks
- Names of respirator wearer
- Designated area for donning/doffing respirators and PPE
- Reasonable foreseeable emergencies and recommended response
- Filter change-out schedule

4.3.2 Worksite- Specific Procedures for Voluntary Use of NIOSH Approve Filtering Facepiece Respirator

Employees who are not required to wear respiratory protection but choose to voluntarily wear a National Institute for Occupational Safety & Health (NIOSH) approved filtering facepiece respirators (FFRs) are not included in the Respiratory Protection Program. However, FM-OHS program administrator and FM- supervisors and employees will jointly generate Worksite-Specific Procedures for Use of NIOSH approved FFRs (Appendix C.2)

4.3.3 Non-Routine Respirator Use Plan

For non-routine work or emergency operations that require the use of respiratory protection and do not have an established procedure, a Non-Routine Respirator Use Plan shall be used. Supervisors and FM-OHS will jointly fill out the *Non-Routine Respirator Use Plan form* (Appendix C.3) and have it reviewed by affected employees.

4.3.4 Use of Respiratory Protection When Required

FM-OHS program administrator and employees' supervisor will review employees' tasks considering results defined in clause 4.2.1 to determine requirement of using respiratory protection for the employees.

4.3.4.1 Entrance to the FM-Respiratory Protection Program

- a) FM-OHS program administrator must submit the *Respirator Use Information* form (Appendix C.4) to the employee and their supervisor within two-business day of determination need of a respirator.
- b) The Employee and their supervisor must complete the form and return to FM-OHS program administrator within two-business day of receiving the form.
- c) The employee must complete the on-line MedExpress Respirator Medical Evaluation Questionnaire (Appendix C.5) two-business day of receiving the questionnaire email from FM-OHS program administrator.
- d) Supervisors must issue employees respiratory protection for required use after the employees are medically approved, trained, and fit tested, in conjunction with FM-OHS.

4.3.4.2 Be clean shaven when wearing a tight-fitting respirator

If facial hair comes between the sealing surface of the facepiece and the face, the respirator wearer cannot use tight-fitting respiratory protection, including FFRs, when respiratory protection is required. Employees are required to be clean-shaven (no beard, goatee, or mustache below the side of the mouth) when wearing a tight-fitting respirator.

4.3.5 Voluntary Use of Respiratory Protection

- a) Supervisors must contact FM-OHS if voluntary use of respiratory protection is desired.
- b) FM-OHS program administrator will conduct a respiratory hazard assessment to determine whether voluntary use of respiratory protection is permissible.
- c) FM-OHS program administrator will inform the supervisor in writing if voluntary use is allowed along with a description of the tasks or locations in which voluntary use is acceptable
- d) FM-OHS program administrator must provide voluntary respirator users with a copy of the *Voluntary Use of Respiratory Protection Agreement* form (Appendix C.6), which includes 29 CFR 1910.134 Appendix D, *Information for Employees Using Respirators When Not Required under the Standard*.
- e) Voluntary respirator user must read and understand the *Voluntary Use of Respiratory Protection Agreement* form, and sign and return to FM-OHS.
 - a) Upon completion the procedure for voluntary use of respiratory protection, supervisors must provide NIOSH approved filtering facepiece respirators (e.g. N95).

4.3.6 Contractor Use of Respiratory Protection

- a) Contractors may be hired to complete tasks or work in areas where respiratory protection is needed. Contractors are responsible for complying with all aspects of 29 CFR 1910.134. FM and contractor personnel must communicate the presence of respiratory hazards, jobsite restrictions, and requirements when working in a proximity that affects surrounding personnel.
- b) FM Project Managers shall make sure that contractors comply with applicable requirements of this program

4.3.7 Employee Respiratory Fit Test Status

When employees cannot successfully complete their scheduled 1:1 respirator fit test and training (Appendix C.7), they will receive "Employee(s) Respiratory Fit Test Status/ Rescheduled Fit" notification. Examples of some reasons for which respirator fit testing training may be rescheduled include:

- a) Employee is not present.
- b) Employee is not clean-shaven, ONLY for tight-fitting air purifying respirator wearer.

4.3.8 Respiratory Protection Program Exiting

- a) If employees have not used their respirator within the last 12 months, they will receive "*Removal from the FM-OHS Respiratory Protection Program*" notice and will be removed from the Respiratory Protection Program. Upon notification, a *Respiratory Protection Program*

Exit form (Appendix C.8) will be completed by the supervisor and employee, and returned to FM-OHS.

- b) If employees do not attend their entry or annual 1:1 respirator fit test and training for two consecutive rescheduling, they will receive “*Final Notice of Removal from the Respiratory Protection Program*”. Employees shall reply to the notice by the due date, otherwise they will receive “*Notice of Removal from the Respiratory Protection Program*” and will be removed from the Respiratory Protection Program.
- c) If employees must be removed from the Respiratory Protection Program due to change in job duties or change in employee’s physical condition, the supervisor and employee must inform FM-OHS, complete, and return the *Respiratory Protection Program Exit form* to FM-OHS.
- d) Upon exit from the Respiratory Protection Program, the supervisor must collect the employee’s issued respirator. If the employee is required to be re-entered into the program, the supervisor must contact FM-OHS prior to re-issuing respiratory protection and complete the Respirator Use Information form.

4.4 Respiratory Protection Care and Maintenance

Supervisors must make sure an adequate supply of respiratory protection and accessories is in good, working condition. Reusable respiratory protection must be cared for and maintained to assure continued performance. Cleaning, inspection, and storage of respirators following each use is the responsibility of:

- a) Employees issued respiratory protection
- b) Supervisors, when respiratory protection is assigned to multiple respirator wearer. Multiple respirator wearer can wear ONLY loose-fitting powered air purifying respirators.
- c) FM-OHS, for respiratory protection used for fit testing or training

4.5 Cleaning of Respirators

Respirators must be clean and keep in a good, working condition and ready to use. Cleaning procedures may be different for different types of respirators. In general, cleaning inside and outside of respirators with non-alcohol/alcohol wipes is required after using them. For most of the job site conditions at FM, cleaning respirators with wipes should be sufficient. In case of working in a much-polluted condition, employees shall follow 29 CFR 1910.134 Appendix B-2, *Respiratory Cleaning Procedures (Mandatory) and manufacture instruction*.

4.5.1 Procedures for cleaning tight-fitting respirators

Procedures for cleaning half-face and full-face air purifying respirators other than filtering facepieces as specified in 29 CFR 1910.134 Appendix B-2, *Respiratory Cleaning Procedures (Mandatory)*, include the following:

- 1) Remove filters /cartridges
- 2) Disassemble facepiece by removing speaking diaphragms, valves and gaskets, or any components recommended by the manufacturer

- Full-Face Respirators: the center adaptor, lens, and nose cup can also be removed if necessary
- 3) Wash components in warm water (not exceeding 120 °F) with a mild detergent or with a cleaner recommended by the manufacturer. A soft bristle brush (not wire) may be used to remove dirt.
 - 4) Rinse components thoroughly in clean, warm running water
 - 5) Components should be hand-dried with a clean lint-free cloth or air-dried
 - 6) Reassemble facepiece, replacing filters /cartridges
 - 7) Test the respirator to make sure that all components work properly
 - 8) Place in a clean, dry, sealable plastic bag or other suitable container for storage after each cleaning and disinfection

4.5.2 Procedures for cleaning loose fitting respirators

Procedures for cleaning loose fitting respirators as recommended in www.3m.com including the following:

- 1) Remove the filter/cartridge and breathing tube while each of those connections are facing down
 - 2) The outer surfaces motor/blower assembly and battery pack may be wiped with a soft cloth dampened in a solution of water and mild, pH neutral detergent.
- 3m TR series: attach the air inlet and air outlet cleaning and storage plugs into the blower. The motor/blower can now be rinsed under running water or submersed in water. Water temperature should not exceed 122 °F (50 °C). Wipe down top of the battery pack, with a soft dry cloth. If needed, the battery strap can be used to protect the pads during cleaning. With the strap in place, the battery can now be rinsed under running water or immersed. Make sure the connectors are clean and dry prior to charging, installing on blower or for storage.
- 3) Clean the connection sites on the breathing tube with the water and detergent solution. The breathing tube can be immersed in water for cleaning if required. The inside of the tube must be completely dried prior to use or storage. Air dry, or dry by connecting to the motor/blower unit and use it to force air through the tube until dry. Orient tube to prevent water from running into blower.
 - 4) Wipe or rinse all belts thoroughly and dry completely before next use.
 - 5) Clean headgear based on the headgear specific User Instruction and cleaning guides.
 - 6) Reassemble head gear, berating tube, blower/motor and replacing filters /cartridges
 - 7) Test the respirator to make sure that all components work properly
 - 8) Place in a clean, dry, respirator bag for storage after each cleaning and disinfection

4.5.3 Disinfect respirators

After executing cleaning procedures, (Cleaning is recommended after each use. Nitrile or vinyl gloves should be worn during cleaning) if needed, disinfect respirators e.g. COVID-19 pandemic. Follow your department disinfecting protocol or manufacture disinfecting instruction. In general, use Oxivir, Virex, or Sani wipes (orange or purple). Surfaces must be visibly wet with disinfectant for the full-specified contact time.

4.6 Inspection of Respirators

Employees shall inspect their assigned respirators every time before use.

- a) The inspection of respiratory protection includes:
 - 1) Test respirator function
 - 2) Check tightness of connections
 - 3) Inspect condition of facepiece, head straps, valves, connecting tube, and filters/cartridges,
 - 4) Check elastomeric parts for pliability and signs of deterioration.
- b) For powered air-purifying respirators (PAPR), the inspection also includes:
 - 1) Charging batteries
 - 2) Checking flow velocity
 - 3) Performing leak tests on the HEPA filter within the unit
- c) Employees must report respirator malfunctions identified during the inspection to their supervisor.

4.7 Respirator Storage

Supervisors must allocate adequate storage and storage supplies for respiratory protection to protect respirators from damage, contamination, dust, sunlight, extreme temperatures, excessive moisture, and damaging chemicals.

- a) Half-mask and full-face air-purifying respirators shall be placed in sealable plastic bags. Respirators may be stored in such places as lockers or desks only if they are first placed in carrying cases or cartons.
- b) After cleaning and inspecting respirators to determine that they are in good condition, the respirator wearer must store the respirators in a designated storage area.
- c) Respirators shall be packed or stored so that the facepiece and exhalation valves will rest in a normal position and not be crushed or deformed. Do not hang respirators by their straps, as this ruins the integrity of the straps and causes the respirator to lose its seal.

4.8 Respirator Maintenance

- a) Respirator maintenance is the responsibility of:
 - Respirator wearers
 - Supervisors
 - FM-OHS, for respirators used for training or fit testing
- b) Respirators found to be defective may not be repaired and must be discarded. Only the following parts may be replaced if found to be worn or deteriorated:
 - Inhalation valves, exhalation valves, inhalation gaskets, speaking diaphragm
 - Headgear, breathing tube, motor, blower, battery, filter cover, shroud
- c) No attempt will be made to make adjustment or repairs on any respirator.

4.9 Medical Evaluations

Employees required to wear respiratory protection must be medically evaluated by a PLHCP to determine the user’s medical ability to wear the type of respirator required under the anticipated job and workplace conditions. The medical evaluation must be conducted prior to issuance of respiratory protection. The medical evaluation consists of an assessment of the employee’s ability to safely use the respiratory protection equipment designated on the Medical Evaluation Questionnaire, and any follow-up medical exams deemed necessary by the PLHCP.

4.9.1 Administration of Medical Evaluation

FM-OHS program administrator coordinates with medical evaluation administered by the PLHCP including the following:

- a) FM-OHS program administrator submits the *Respirator Use Information* form to employees to complete and return to FM-OHS.
- b) When FM-OHS program administrator receives the completed *Respirator Use Information* form, FM-OHS program administrator emails the MedExpress Respirator Medical Evaluation Questionnaire to employees.
- c) Employees must be permitted to complete the questionnaire during normal work hours within 48 hours of receiving the notification.
- d) This respirator medical evaluation will be conducted by MedExpress/WestMed remotely, unless the PLHCP determines a need for an in-person medical evaluation.
- e) FM-OHS program administrator pulls up employees’ medical evaluation results from the MedExpress databased and proceed according to the Table 1.

Table1: Respirator Medical Evaluation Results

Results of Respirator Medical Evaluation Questionnaire	FM-OHS Action	Respirator Wearer’s Action
Approved	Schedule the employee for their 1:1 respirator fit test and training	Attend the scheduled 1:1 respirator fit test and training
Approval Pending	Notify the employee to call VestMed Physician @ call (844) 278-7193	Call VestMed Physician within 48 hours of receiving this notification
Approval Deferred	Coordinate scheduling the employee with WorkMed, providing OSHA Respirator Medical Evaluation Questionnaire & WorkMed address	Attend the schedule WorkMed in-person medical evaluation

Note: For employees exposed to asbestos or silica, the PLHCP shall meet all medical evaluation requirements set forth in:

- 29 CFR 1910.1001 and 29 CFR 1926.1101 *Toxic and Hazardous Substances for Employees That Work With Asbestos*
 - 29 CFR 1910.1053 and 29 CFR 1926.1153 *Toxic and Hazardous Substances for Employees That Work With Silica*
- f) All costs associated with medical evaluations and examinations related to employee use of respiratory protection in the workplace are paid by UVA-FM.

4.9.2 Additional medical evaluations are required when:

- a) Individual reports medical signs or symptoms related to the ability to use a respirator
- b) The PLHCP or supervisor recommends an employee for re-evaluation
- c) Information obtained during program evaluation or fit testing indicates a need for re-evaluation
- d) There are changes in workplace conditions (physical work effort, PPE, and temperature) that may result in substantial increase in physiological burden placed on employees

4.9.3 Supplemental Information for the PLHCP

The following additional information must be provided to the PLHCP if not already on file:

- a) Copy of 29 CFR 1910.134
- b) Copy of Respiratory Protection Program
- c) Copy of OSHA Respirator Medical Evaluation Questionnaire (Appendix C.9)
- d) Copy of Respirator Use Information
- e) Previous records related to the use of respiratory protection maintained by FM-OHS for the individual being evaluated

4.9.4 PLHCP/ MedExpress Written Opinion on Remote Online Respirator Medical Evaluation

Following completing the online respirator medical evaluation questionnaire, MedExpress shall provide a written opinion immediately, stating one of the following:

- Approval
- Approval pending
- Approval deferred

4.9.5 PLHCP/ WorkMed Written Opinion on In-Person Follow-up Medical Examination

Following the in-person medical examination, the PLHCP/ WorkMed shall provide a written opinion within 15 days of the evaluation of the employee with a copy to FM-OHS. The PLHCP written opinion shall include the following information:

- a) Whether the PLHCP considers the individual medically able to wear respiratory protection under the conditions described in the *Respirator Use Information* form
- b) Any limitations on respirator use related to medical conditions, including a medical recommendation for the individual to use a PAPR instead of an APR

4.10 Training

Respiratory Protection Training is provided by FM-OHS to individuals required to wear a respirator as part of their job.

- a) Employees who enter the FM- Respiratory Protection Program must attend Respirator New User training and 1:1 respirator fit test and training prior to initial assignment to tasks requiring respirators.
- b) Employees who are in the FM Respiratory Protection Program must attend 1:1 respirator fit test and training annually thereafter until use of the respirator is discontinued. At the completion of training, each attendee must demonstrate comprehension in:

- Why respiratory protection is necessary
- How improper fit, usage, or maintenance can compromise the protective effect of the respirator.
- Limitations and capabilities of the respirator
- How to assemble and operate the respirator
- How to inspect the respirator
- How to don and doff the respirator
- Conducting wearer seal checks/conducting air flow check with an air flow indicator
- Procedures for maintenance and storage of the respirator
- Knowledge of the medical signs and symptoms that may limit or prevent the effective use of respirators

4.11 Fit Testing

4.11.1 Quantitative fit testing for Tight-fitting respirator wearers

The PortaCount Pro+8038 fit testing device determines the fit factor based on the ratio of particle concentrations outside the respirator versus inside the respirator. Quantitative fit testing (QNFT) is the preferred method because it does not rely on the respirator wearer to identify exposure. A fit test is conducted to determine the ability of each respirator wearer to obtain a satisfactory fit with a tight-fitting respirator.

- a) All individuals required to use tight-fitting respiratory protection must successfully pass a quantitative fit test with PortaCount Pro+8038 using the same make, model, style, and size of respirator that will be used.
- b) Fit testing must be completed annually and thereafter until use of the respirator is discontinued.
- c) Fit testing will only be provided to employees who:
 - Are deemed medically able to wear respiratory protection by the PLHCP
 - Have completed the Respirator New User training (New respirator wearers only)
 - Are clean-shaven
- d) Quantitative fit testing is conducted by FM-OHS program administrator or an FM-OHS employee competent in using a PortaCount Pro+8038 electronic device.
- e) OSHA-approved QNFT methods are described in 29 CFR 1910.134 Revised Appendix A (September 26, 2019) *Fit Testing Procedures (Mandatory)* and are summarized in the Respiratory Protection Program Fit Test and Training Standard Operating Procedures (SOP).

4.11.2 Training for loose-fitting respirator wearers

Employees who are assigned to a loose-fitting respirator must attend the scheduled respirator 1:1 training to review requirements of using a loose-fitting respirator.

- a) All individuals required to use loose-fitting respiratory protection must review *respirator fit test and training* form, and using the same make, model of respirator that will be used.
- b) Respirator 1:1 training must be completed annually and thereafter until use of the respirator is discontinued.
- c) Respirator 1:1 training will only be provided to new respirator wearers who:

- Are deemed medically able to wear respiratory protection by the PLHCP
- Have completed the Respirator New User training
- Their supervisor already provided their loose-fitting respiratory protection

4.11.3 Qualitative fit testing for filtering facepiece respirator wearers when it is required to wear the respirator

FM-OHS uses 3M FT-30 Qualitative Fit Test (QLFT) Apparatus (Bitter) to conduct qualitative fit testing for employees who are required to wear a NIOSH approved FFR due to the specific work situation, e.g. COVID-19 pandemic. When the PortaCount Pro+8038 fit testing device is not at service due to the calibration time or is loaned to other UVA Departments, QLFT method can be conducted for elastomeric tight-fitting air purifying respirators too.

- a) All individuals required to use a FFR must successfully pass a QLFT using the same make, model, style, and size of respirator that will be used.
- b) Fit testing must be completed annually and thereafter until use of the respirator is discontinued.
- c) Fit testing will only be provided to respirator wearers who:
 - Are deemed medically able to wear respiratory protection by the PLHCP.
 - Have completed the Respirator New User training (New respirator users only).
 - Are clean-shaven

4.12 Fit Test Cards

All employees who are required attend 1:1 respirator fit test and training shall complete the *respirator fit test & training* form. Upon successful completion of respirator fit test and training, FM-OHS will *provide* employee with a fit test card, containing the following information:

- Respirator wearer name and computing ID
- The type, make, model, and size of respirator issued
- Fit Test Date and expiration date of fit test (one year from the date of issuance)
- FM-OHS fit test conductor's name

5. Review and Recordkeeping

5.1 Program Review

The Respiratory Protection Program will be reviewed and updated at least annually and whenever necessary for continued program effectiveness and compliance with applicable regulations and industry standards. Program review will be conducted internally, analyzing program compliance with fit test due dates, inclusion of exposed employees, and capture of inactive program participants.

5.2 Respiratory Protection Records

FM-OHS maintains Respiratory Protection Program records, including records of *Respirator Use Information* form, medical evaluations, Respirator Fit test and Training, *Respiratory Protection Program Exit* form, New Respirator User training, applicable regulations and standards and resources and, program materials.

5.2.1 Medical evaluation records

Medical evaluation records must be maintained for 30 years after termination of employment.

Medical evaluation records include:

- a) Name and computing ID# of employee
- b) Completed copies of all Respirator Medical Evaluation Questionnaires maintained in PLHCP/ MedExpress platform.
- c) PLHCP/ MedExpress written opinion maintain MedExpress platform
- d) Other follow-up medical exams conducted to determine an employee's fitness to use respiratory protection maintain in WorkMed medical records.
- e) PLHCP/ WorkMed written opinion will be maintained in the respirator wearers' folder on FM-OP\G: Drive \ Industrial Hygiene \Respiratory Protection Program/ Records.

5.2.2 Respirator Fit Test and Training records

Respirator fit test and training records are retained for five years of the fit test and training date in FM-OP\G:\OPERATIONS\FM-OHS\5.Industrial Hygiene\Respiratory Protection\3.Records. Fit test and training records include:

- a) Date of test
- b) Name of respirator wearer
- c) Type of fit test performed
- d) Fit test substance used (if qualitative fit testing is conducted)
- e) Specific make, model, size of respirator
- f) Results of fit test

5.2.3 New Respirator User training records

New Respirator User training records are retained for five years of the date of training in FM-OP \G:\OPERATIONS\FM-OHS\4.Training\Respiratory Protection, and FM-OP \G:\OPERATIONS\FM-OHS\4.Training \ Master attendance log and UVA- Workday including:

- a) Date of training
- b) Supervisor, work area, job classification, and similar exposure group
- c) Name and computing ID# of respirator wearer
- d) Instructor
- e) Copy of written quiz to demonstrate comprehension

5.2.4 Records of employees' *Respirator Use Information* form and *Respiratory Protection Program Exit* Form

Records of employees' *Respirator Use Information* form and *Respiratory Protection Program Exit* form are retained for five years of the entrance to/ exit from the program in employee's folders in FM-OP\G:\OPERATIONS\FM-OHS\5.Industrial Hygiene\Respiratory Protection\3.Records.

5.2.5 Respiratory Protection regulations

Respiratory Protection regulations, standards and resources are maintained in G:\OPERATIONS\FM-OHS\5.Industrial Hygiene\Respiratory Protection\4.Resources.

5.3 Program Recordkeeping

Records of this FM-OHS Respiratory Protection Program will be considered obsolete when the new version is issued. Obsolete versions will be maintained for five years and then destroyed.

Appendix A: Definitions

Air-purifying Respirator (APR) means a respirator with an air-purifying filter, cartridge, or canister that removes specific air contaminants by passing ambient air through the air-purifying element.

Atmosphere-Supplying Respirator means a respirator that supplies the respirator user with breathing air from a source independent of the ambient atmosphere.

Canister or Cartridge means a container with a filter, sorbent, or catalyst, or combination of these items, which removes specific contaminants from the air passed through the container.

Filter means a component used in respirators to remove solid or liquid aerosols from the inspired air.

Filtering Facepiece means a negative pressure particulate respirator with a filter as an integral part of the facepiece or with the entire facepiece composed of the filtering medium.

Fit Test means the use of a protocol to qualitatively or quantitatively evaluate the fit of a respirator on an individual. (See also Qualitative fit test QLFT and Quantitative fit test QNFT.)

High Efficiency Particulate Air (HEPA) Filter means a filter that is at least 99.97% efficient in removing monodisperse particles of 0.3 micrometers in diameter. The equivalent NIOSH 42 CFR 84 particulate filters are the N100, R100, and P100 filters.

Loose-Fitting Facepiece means a respiratory inlet covering that does not depend on a seal with the face to provide protection.

Permissible Exposure Limit (PEL) means the legal amount of a chemical substance or physical agent an employee may be exposed to a, established by the Occupational Safety and Health Administration (OSHA).

Physician or Other Licensed Health Care Professional (PLHCP) means an individual whose legally permitted scope of practice (i.e., license, registration, or certification) allows him or her to independently provide, or be delegated the responsibility to provide, some or all of the health care services required by paragraph (e) of this section.

Powered Air-Purifying Respirator (PAPR) means an air-purifying respirator that uses a blower to force the ambient air through air-purifying elements to the inlet covering.

Program Administrator means a designated employee who is qualified by appropriated training or experience that commensurate with complexity of the program to administer or oversee the respiratory protection program and conduct the required evaluation of program effectiveness

Quantitative Fit Test (QNFT) means an assessment of the adequacy of respirator fit by numerically measuring the amount of leakage into the respirator.

Tight-Fitting Facepiece means a respiratory inlet covering that forms a complete seal with the face.

Threshold Limit Values (TLVs) refer to airborne concentrations of chemical substances and represent condition under which it is believed that nearly all workers may be repeatedly exposed, day after day, over working lifetime, without adverse health effects.

Respirator Wearer Seal Check means an action conducted by the respirator wearer to determine if the respirator is properly seated to the face.

Appendix B: Acronyms

ACGIH	American Conference of Governmental Industrial Hygienists
ANSI	American National Standard
APR	Air Purifying Respirator
ASSE	American Society of Safety Engineers
BEIs	Biological Exposure Indices
FFR	Filtering Facepiece Respirator
FM	Facilities Management
FM-OHS	Facilities Management Occupational Health and Safety
HEPA	High-Efficiency Particulate Air
NIOSH	National Institute for Occupational Safety and Health
OSHA	Occupational Safety and Health Administration
PAPR	Powered Air-Purifying Respirator
PEL	Permissible Exposure Limit
PLHCP	Physician or Other Licensed Healthcare Provider
SDS	Safety Data Sheet
SOP	Standard Operating Procedure
TLVs	Threshold Limit Values
UVA-FM	University of Virginia-Facilities Management

Appendix C.1: [Worksite-Specific Procedure for Use of Respiratory Protection](#)

Appendix C.2: [Worksite-Specific Procedure for Voluntary Use of Filtering Facepiece Respirator](#)

Appendix C.3: [Non-Routine Respirator Use Plan](#)

Appendix C.4: [Respirator Use Information](#)

Appendix C.5: [MedExpress Respirator Medical Evaluation Questionnaire](#)

Appendix C.6: [Voluntary Use of Respiratory Protection Agreement](#)

Appendix C.7: [Respirator Fit Test and Training](#)

Appendix C.8: [Respiratory Protection Exit](#)

Appendix C.9: [OSHA Respirator Medical Evaluation Questionnaire](#)