

Respirator Protection Policy

Description

OBJECTIVE

The objective of this policy is to prevent adverse health effects from the inhalation of hazardous airborne contaminants through the administration of a comprehensive Respiratory Protection Program.

POLICY

The control of potential health hazards caused by breathing air contaminated with harmful levels of chemical, physical or biological agents shall be accomplished as far as feasible by accepted engineering control measures. When effective engineering controls are not feasible, or while they are being instituted, appropriate respiratory protection shall be used.

This program impacts all employees, students, volunteers, and contractors (working under direct UF supervision), who are required, or elect, to wear respiratory protection as part of their employment. Only respirators which are applicable and suitable for the purpose intended shall be used. Individuals who voluntarily wear filtering face pieces (dust masks) are covered by this policy only as addressed in the Voluntary Use section. Additional instructions for respiratory protection may be found in other EH&S policies and programs addressing specific hazards (e.g. Asbestos, Q-Fever, or Confined Space Entry).

AUTHORITY

By authority delegated from the University President, the Vice-President for Business Affairs is responsible for the safety of all University facilities. Under this authority, policies are developed to provide a safe teaching, research, service, housing and recreational environment.

RESPONSIBILITY

[su_spoiler style="fancy" icon="chevron" title=" Environmental Health and Safety "]
EH&S is responsible for the administration of the respiratory protection program, which includes determining the need for respiratory protection, respirator selection, training and fit testing. EH&S also maintains all non-medical records pertaining to this program. An EH&S respiratory protection program administrator is designated to provide guidance and oversight to the program.

[/su_spoiler] [su_spoiler style="fancy" icon="chevron" title=" Occupational Medicine Clinic "]
The Occupational Medicine Clinic (Phone 352-392-5700) provides for medical evaluations for respirator use clearance and maintains medical records.

[/su_spoiler] [su_spoiler style="fancy" icon="chevron" title=" Departments "]

Departments are responsible for assisting EH&S in identifying employees required to wear a respirator by keeping EH&S apprised of new potential hazards entering the work area by utilizing the computerized Health Assessment Management System (HAMS) for both new hire employees and for those having a change in their job duties. Completing personal protective equipment (PPE) assessments of work processes and tasks, described in the EH&S policy on Personal Protective Equipment which is useful for recognizing potential respiratory hazards.

[/su_spoiler] [su_spoiler style="fancy" icon="chevron" title=" Supervisors and Principal Investigators "]
The Supervisors and Principal Investigators (P.I.'s) shall ensure that all their employees in the program have had a medical evaluation, receive training and fit testing on a yearly basis at no cost to the employee.

[/su_spoiler] [su_spoiler style="fancy" icon="chevron" title=" Employees, Students, Volunteers, and Contractors "]
Affected employees, students, volunteers, and contractors (working under direct UF supervision), herein called respirator wearers, are responsible for obtaining a medical clearance to wear a respirator, to be fit tested and receive training. The respirator wearer shall use the respirator when required by the specified work activity and ensure that the respirator is cleaned, stored and maintained according to the provisions of this program.

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PROCEDURES

[su_spoiler style="fancy" icon="chevron" title=" Respirator Selection"]
Respirators will be worn when the following conditions apply:

Environmental Health and Safety (EH&S) Division, with assistance from the employee's supervisor, has identified and evaluated respiratory hazards and determines the need for respiratory protection based on quantitative exposure assessments or a reasonable estimate of the employee's exposure to respiratory hazard(s) given the contaminant's chemical state and physical form.

Employees are working in areas where contaminant levels may become unsafe without warning, such as in emergency response situations to an unknown spill of hazardous material. In these situations where exposures cannot be identified or reasonably estimated, the work area shall be considered immediately dangerous to life or health (IDLH). These IDLH atmospheres require air-supplied respirators along with specialized training.

The Safety Data Sheet (SDS) or chemical label specifically requires the use of a respirator for the task being performed.

Medical personnel performing high hazard procedures on patients, cadavers, or in a laboratory that may generate an infectious aerosol are required to wear, at a minimum, an N95 respirator and to comply with the appropriate sections of this policy.

Significant levels of infectious biological contaminants may become aerosolized. The EH&S Biosafety Officer will determine the appropriate level of respiratory protection that may be required.

Employees are engaged in activities that are addressed in other EH&S policies such as asbestos, certain other chemical, biological, or radiological hazards, or for confined space entry, which require the use of respiratory protection.

Only respirators approved by the National Institute for Occupational Safety and Health (NIOSH), under the provisions of 30 CFR Part 11 and 42 CFR Part 84, shall be used. Since respirators are approved as a unit, parts from different manufacturers or models shall not be interchanged, and no modification of a respirator is permitted.

Employees who have facial hair that may come between the sealing surface of the facepiece and the face or that interferes with valve function must not wear tight-fitting facepiece respirators. Respirators that do not rely on a tight face seal, such as Powered Air Purified Respirator (PAPR) hoods or helmets, may be used by bearded individuals when appropriate for the hazard presented.

Each department is responsible for providing respirators, replacement parts, and cartridge/filters as necessary to employees who have been identified as needing respirators. If possible, tight fitting respirators manufactured by North, Wilson, MSA, 3M or Scott should be used.

A more detailed explanation of the respirator selection process can be found in [*Respirator Selection Guidelines*](#), or by calling the EH&S Respiratory Protection Program Administrator, at 352-392-1591.

[/su_spoiler] [su_spoiler style="fancy" icon="chevron" title=" Request for Respirator Use"]
An online [*Review for Respirator Use*](#) form must be completed and submitted to EH&S by any individual wanting to wear a respirator.

The form will be reviewed by EH&S to determine if respirator use is warranted and to verify that the appropriate respirator has been selected based on the listed hazards.

Following this review, the completed and approved form is forwarded to the Occupational Medicine Clinic.

[/su_spoiler] [su_spoiler style="fancy" icon="chevron" title=" Voluntary Use of Respirators"]
Filtering Facepieces (Dust Masks): If EH&S has determined that no respiratory hazard exists but the employee wants to use a self-provided filtering facepiece respirator (dust mask) for comfort, no medical clearance is required. The employee will be provided a copy of the "Voluntary Use of Filtering Facepiece Respirators" self-training document and Appendix D of the OSHA Respiratory Protection Standard which must be reviewed, signed and kept on file.

Individuals required to use an N95 filtering facepiece respirator must comply with all aspects of the Respiratory Protection Policy.

Tight Fitting Respirators: Any individual wanting to use this type of self-provided respirator must comply with all aspects of the University's Respiratory Protection Program.

[/su_spoiler] [su_spoiler style="fancy" icon="chevron" title=" Medical Evaluations "]

The use of a respirator places unusual stress on the wearer to the extent that employees entering this program must be evaluated by a physician or other licensed health care professional. The purpose of the evaluation is to screen employees for pre-existing conditions not conducive to respirator use, confirm that the individual can handle the additional stress caused by the respirator and re-evaluate the wearer periodically for changes in health and abilities.

Specific instructions and forms for medical evaluations are included in [Industrial Hygiene Program Area Forms](#) page.

[/su_spoiler] [su_spoiler style="fancy" icon="chevron" title=" Training "]

Training is required for all respirator users prior to fit testing, and annually thereafter, covering the following elements:

- Why the respirator is necessary and how improper fit, usage, or maintenance can compromise the protective effect of the respirator.
- If applicable, wearers should know how to use the respirator effectively in emergency situations, including situations in which the respirator malfunctions.
- How to inspect, put on and remove, use, and check the seals of the respirator.
- What the procedures are for maintenance and storage of the respirator.
- How to recognize medical signs and symptoms that may limit or prevent the effective use of respirators.

Retraining may be required more than annually if workplace conditions change, new types of respirators are used, or if the EH&S Coordinator or supervisor determines there are inadequacies in the employee's knowledge or use.

Online training modules covering N95, and tight-fitting respirator use can be found at [Training Registration](#). EH&S is available to conduct group training sessions. A record of the training shall be kept by EH&S and the Department.

[/su_spoiler] [su_spoiler style="fancy" icon="chevron" title=" Fit Testing"]

All wearers of respirators that rely on a mask-to-face seal must be fit tested before initial use and annually thereafter. Fit testing is also required when a change in the facial structure of a wearer occurs or a different make/model of respirator is purchased.

Qualitative or quantitative fit tests are used to determine if the respirator mask provides an acceptable fit to the wearer. Qualitative fit test procedures rely on a subjective sensation (taste, irritation, smell) of the respirator wearer to a particular test agent while a quantitative fit test uses measuring instruments to measure face-seal leakage.

All fit testing is provided through EH&S. If a position is filled that requires the use of a respirator, please contact EH&S after successfully completing the medical evaluation and training to set up a fittest time at 352-392-1591. A record of the fit test shall be kept by EH&S and retained until the next fittest is administered.

Fit testing of tight-fitting atmosphere-supplying respirators and tight-fitting powered air- purifying respirators (PAPR's) shall be accomplished by performing quantitative or qualitative fit testing in the negative pressure mode.

Users of full-face piece, tight fitting respirators who must wear corrective lens eyeglasses, must use an adaptor so the lenses can be mounted inside of the respirator. Eyeglass temple bars must not pass under or interfere with the facepiece seal.

Loose fitting hood or helmet type PAPRs do not require fit testing.

All N-95 filtering face-piece users must be qualitatively fit tested initially and yearly thereafter unless exempt through the Voluntary Use review.

[/su_spoiler] [su_spoiler style="fancy" icon="chevron" title=" User Seal Checks"]

Each time a respirator is placed in position on the face (donned), the wearer shall conduct a negative and positive pressure seal check to ensure a proper fit. This ensures the respirator is adjusted properly and sealed against the face. The advantages are that the wearer can do this alone in the field and the check can be repeated any time the seal is in question. A negative pressure check is accomplished when the wearer closes off the respirator inlet and inhales. A vacuum and partial inward collapse of the mask should result. If a vacuum cannot be maintained, readjust the facepiece and try again. A positive pressure check is accomplished when the wearer closes off the exhalation valve and breathes out gently. An outward expansion of the respirator should result. Air will escape through any gaps in the seal. If this should happen, readjust the facepiece and try again.

[/su_spoiler] [su_spoiler style="fancy" icon="chevron" title=" Inspection and Maintenance"]

Supervisory personnel shall insure respirators are used and worn correctly. If problems are observed corrective measures shall be taken immediately. If the respirator is not appropriate for the hazard, the wearer shall leave the area, cease work or take other action to eliminate further exposure.

Each person issued a respirator shall inspect the respirator prior to each use to ensure that it is in good condition. This inspection shall include a check of the tightness of the connections and the condition of the facepiece, headbands, valves, and cartridges. The mask itself shall be inspected for signs of deterioration. If any defects are noted, the wearer shall repair the respirator. Replacement parts shall be approved for the specific respirator being repaired. If the repair cannot be made immediately, a replacement respirator of the same model and size shall be provided until such time as the repair can be made.

[/su_spoiler] [su_spoiler style="fancy" icon="chevron" title=" Cleaning and Sanitizing"]

All tight fitting respirators shall be cleaned and sanitized after each use by the respirator wearer. This shall be done in accordance with the manufacturer's recommendations.

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When not in use, respirators shall be placed in individual sealable containers to protect them from contamination. Storage shall be in designated storage areas in such a manner that the respirator will not be distorted or damaged. Storage areas to avoid include workbenches, tool boxes, or hanging from hooks out in the open workroom.

[/su_spoiler] [su_spoiler style="fancy" icon="chevron" title=" Emergency Use"]

All respirators maintained for use in emergency situations, with the exception of SCBA's, shall be inspected at least monthly and in accordance with the manufacturer's recommendations, and shall be checked for proper function before and after each use. These inspections shall be logged using the *Respirator Inspection Log*.

SCBA's shall be inspected utilizing the *SCBA checklist*.

Employees who may need to use emergency respirators should refer to specific programs that address these emergencies. Note: Emergency use of respirators requires additional response training.

[/su_spoiler] [su_spoiler style="fancy" icon="chevron" title=" Cartridge Changeout "]

Cartridges should be dated when opened and replaced based on the manufacturer's recommendations. If the manufacturer has made no recommendations, changeout should occur based on OSHA's methods of estimating service: Rule-of-thumb, mathematical models, or by experimental testing.

If no data exists for the timely replacement of chemical cartridge respirators, respirators will be disposed after 8-hours of use, or for filtering cartridges when the air resistance becomes for further assistance in making these determinations please contact the Respiratory Protection Program Coordinator.

[/su_spoiler] [su_spoiler style="fancy" icon="chevron" title=" Program Evaluation"]

A yearly evaluation of the program shall be done by the EH&S Respirator Coordinator. Comments related to this policy and program can be made by contacting the EH&S Respiratory Protection Program Coordinator at 352-392-1591.

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References

U.S. Department of Labor, Occupational Safety and Health Administration, Respiratory Protection Standard, 29 CFR 1910.134. http://www.osha.gov/SLTC/etools/respiratory/reg_docs.html; U.S. Department of Labor, Occupational Safety & Health Administration (OSHA), Respirator Change-out Schedules, http://www.osha.gov/SLTC/etools/respiratory/change_schedule.html

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