



## **Respiratory Protection Program**

University Facilities

Internal Procedure: July 1, 2013

Effective date: July 1, 2013

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Approved by: Bob Wells

### **1.0 Program Objective**

UF has implemented this policy to ensure that no employee is exposed to airborne hazards in the workplace exceeding Permissible Exposure Limits (PEL), or oxygen deficient atmospheres. UF will provide respirators which are applicable and suitable for the purpose intended when such equipment is necessary to protect the health of employees. This Respiratory Protection Program provides training, medical evaluations, and respirators at no cost to employees.

### **2.0 Purpose and Scope**

UF will ensure the following training, administrative controls, engineering controls, and safe work practices are enforced:

- 2.1 The Respiratory Protection Program administrator will be responsible for recordkeeping and the periodic evaluation of the program. The evaluation will be based on the results of the air quality monitoring program, medical evaluations, changing work environment, equipment changes, work requirements, and employee responses. Respiratory equipment will be NIOSH certified only, and selection will be made by the program administrator, based on identified and potential hazards, estimated exposures, and contamination information.
- 2.2 In any workplace where respirators are necessary to protect the health of employees, UF has established and implemented this written Respiratory Protection Program with worksite-specific procedures. This program will be updated as necessary to reflect any changes in workplace conditions that affect respirator use.
- 2.3 The Respiratory Protection Program includes the following elements:
  - 2.3.1 Procedures for selecting respirators for use in the workplace.
  - 2.3.2 Medical evaluations of employees required to use respirators.
  - 2.3.3 Fit testing procedures for tight-fitting respirators.
  - 2.3.4 Procedures for proper use of respirators in routine and reasonably foreseeable emergency situations.

- 2.3.5 Procedures and schedules for cleaning, disinfecting, storing, inspecting, repairing, discarding, and otherwise maintaining respirators.
- 2.3.6 Procedures to ensure adequate air quality, quantity, and flow of breathing air for atmosphere-supplying respirators.
- 2.3.7 Training of employees in the respiratory hazards to which they are potentially exposed during routine and emergency situations.
- 2.3.8 Training of employees in the respiratory hazards to which they are potentially exposed during routine and emergency situations.
- 2.3.9 Training of employees in the proper use of respirators, including putting on and removing them, any limitations on their use, and their maintenance.
- 2.3.10 Procedures for regularly evaluating the effectiveness of the program.
- 2.3.11 The program administrator will ensure that effective training is provided to all employees who are required to use respirators. The training will be comprehensive, conducted in a manner that is understandable to our employees, and recur annually or more often if necessary. Before being allowed or required to wear breathing protection, each of our employees will be able to demonstrate knowledge of at least the following:
  - 2.3.11.1 Why the respirator is necessary and how improper fit, usage, or maintenance can compromise the protective effect of the respirator.
  - 2.3.11.2 What the limitations and capabilities of the respirator are.
  - 2.3.11.3 How to use the respirator effectively in emergency situations, including situations in which the respirator malfunctions.
  - 2.3.11.4 How to inspect, put on and remove, use, and check the seals of the respirator.
  - 2.3.11.5 Procedures for cleaning, maintenance, and storage of respirators.
  - 2.3.11.6 How to recognize medical signs and symptoms that may limit or prevent the effective use of respirators.
- 2.3.12 Retraining will be administered annually or when the following situations occur:
  - 2.3.12.1 Changes in the workplace or the type of respirator render previous training obsolete.
  - 2.3.12.2 Inadequacies in the employee's knowledge or use of the respirator indicate that the employee has not retained the requisite understanding or skill.

- 2.3.12.3 Any other situation arises in which retraining appears necessary to ensure safe respirator use.
- 2.3.13 Employees who choose to wear respirators when not required will be provided the basic information on respirators in Appendix D at the end of this chapter.
- 2.3.14 Workplace evaluations will be conducted as necessary to ensure that the provisions of the current Respiratory Protection Program are being effectively carried out and that it continues to be effective.
- 2.3.15 Employees required to use respirators will be regularly consulted to assess their views on program effectiveness and to identify any problems. Any problems that are identified during this assessment will be corrected. Factors to be assessed include, but are not limited to:
  - 2.3.15.1 Respirator fit, including the ability to use the respirator without interfering with effective workplace performance.
  - 2.3.15.2 Appropriate respirator selection for the hazards to which the employee is exposed.
  - 2.3.15.3 Proper respirator use under the workplace conditions the employee encounters.
  - 2.3.15.4 Proper respirator maintenance.
- 2.3.16 The program administrator will ensure that all filters, cartridges and canisters used in the workplace are labeled and color coded with the NIOSH approval label and that the label remains legible and is not removed.
- 2.3.17 Proper respiratory equipment, replacement elements, and any parts or equipment necessary for the functioning of the respiratory equipment will be available to employees at no cost.
- 2.3.18 All respiratory protection equipment will be maintained, cleaned, stored, and serviced per manufacturer's recommendations. Job foremen will supervise and ensure proper methods are used.
- 2.3.19 Respirator selection will be based on the hazards that the worker is exposed. Only NIOSH-certified respirators will be provided. Hazard evaluation is based on the estimate of exposures, type of contaminant, physical form, and chemical state. For no exposure estimate or data, the exposures will be addressed as immediately Dangerous to Life & Health (IDLH) and NIOSH-approved respirators for full-faces pressure demand 30 minute SCBA, or SAR with auxiliary air supply will be provided.
- 2.3.20 UF will provide each respirator user with a respirator that is clean, sanitary, and in good working order. The program administrator will

ensure that respirators are cleaned and disinfected at the following intervals:

- 2.3.20.1 Respirators issued for the exclusive use of an employee will be cleaned and disinfected as often as necessary to be maintained in a sanitary condition.
- 2.3.20.2 Respirators issued to more than one employee will be cleaned and disinfected before being worn by different individuals.
- 2.3.20.3 Respirators maintained for emergency use will be cleaned and disinfected after each use.
- 2.3.20.4 Respirators used in fit testing will be cleaned and disinfected after each use.

2.3.21 The program administrator will ensure that respirators are stored as follows:

- 2.3.21.1 All respirators will be stored to protect them from damage, contamination, dust, sunlight, extreme temperatures, excessive moisture, and damaging chemicals, and they will be packed or stored to prevent deformation of the face piece and exhalation valve.
- 2.3.21.2 In addition to the above requirements, emergency respirators will be:
  - Kept accessible to the work area.
  - Stored in compartments or in covers that are clearly marked as containing emergency respirators.
  - Stored in accordance with any applicable manufacturer respirators.

2.3.22 The program administrator will ensure that respirators are inspected as follows:

- 2.3.22.1 All respirators used in routine situations will be inspected before each use and during cleaning.
- 2.3.22.2 All respirators maintained for use in emergency situations will be inspected at least monthly and in accordance with the manufacturer's recommendations, and will be checked for proper function before and after each use.
- 2.3.22.3 Emergency escape-only respirators will be inspected before being carried into the workplace for use.

2.3.23 The program administrator will ensure that respirator inspections include the following:

- 2.3.23.1 A check of respirator function, tightness of connections, and the condition of the various parts including, but not limited to, the face piece, head straps, valves, connecting tube, and cartridges, canisters or filters.
  - 2.3.23.2 A check of elastomeric parts for pliability and signs of deterioration.
- 2.3.24 In additions to the requirements above, self-contained breathing apparatus will be inspected monthly. Air and oxygen cylinders will be maintained in a fully charges state and will be recharged when the pressure falls to 90% of the manufacturer's recommended pressure level. The program manager will determine that the regulator and warning devices function properly.
- 2.3.25 For respirators maintained for emergency use, the program administrator will:
- 2.3.25.1 Certify the respirator by documenting the data and the inspection was performed, the name (or signature) of the person who made the inspection, the findings, required remedial action, and a serial number or other means of identifying the inspected respirator.
  - 2.3.25.2 Provide this information on a tag or label that is attached to the storage compartment for the respirator, is kept with the respirator, or in included in inspection reports stored as paper or electronic files. This information will be maintained until replaced following a subsequent certification.
- 2.3.26 The program administrator will ensure respirators that fail an inspection, or are otherwise found to be defective, are removed from service and are discarded, repaired, or adjusted in accordance with the following procedures:
- 2.3.26.1 Repairs or adjustments to respirators will be made only by persons appropriately trained to performs such operations and will use only the respirator manufacturer's NIOSH-approved parts designed for the respirator.
  - 2.3.26.2 Repairs will be made according to the manufacturer's recommendations and specifications for the type and extent of repairs to be performed.
  - 2.3.26.3 Reducing and admission valves, regulators, and alarms will be adjusted or repaired only by the manufacturer or a technician trained by the manufacturer.

2.3.27 A medical examination for employees required to use respiratory equipment is required before use of the equipment, and will be provided at no cost to the employee.

2.3.28 UF will provide a medical evaluation to determine the employee's ability to use a respirator, before the employee is fit tested or required to use the respirator in the workplace. UF may discontinue an employee's medical evaluations when the employee is no longer required to use a respirator.

2.3.29 Medical evaluation procedures will include:

2.3.29.1 UF will identify a physician or other licensed health care professional (PLHCP) to perform medical evaluations using a medical questionnaire or an initial medical examination that obtains the same information as the medical questionnaire.

2.3.30 Follow-up medical examination will include:

2.3.30.1 Any medical tests, consultations, or diagnostic procedures that the PLHCP deems necessary to make a final determination.

2.3.31 Administration of the medical questionnaire and examinations will include:

2.3.31.1 The medical questionnaire and examinations will be administered confidentially during the employee's normal working hours or at a time and place convenient to the employee. The medical questionnaire will be administered in a manner that ensures that the employee understands its content.

2.3.31.2 UF will provide the employee with an opportunity to discuss the questionnaire and examination results with the PLHCP.

2.3.32 Supplemental information for the PLHCP will include:

2.3.32.1 The following information will be provided to the PLHCP before the PLHCP makes a recommendation concerning an employee's ability to use the respirator:

- The type and weight of the respirator to be used by the employee;
- The duration and frequency of respirator use (including use for rescue and escape);
- The expected physical work effort;

- Additional protective clothing and equipment to be worn; and
- Temperature and humidity extremes that may be encountered.

2.3.32.2 UF will provide the PLHCP with a copy of the written respiratory protection program.

2.3.32.3 Fit testing of the equipment to individual employees will follow OSHA guidelines.

2.3.32.4 UF will ensure employees pass OSHA-accepted qualitative fit test (QLFT) or quantitative fit test (QNFT) of tight-fitting 36-5 face pieces before initial use, if a different respirator is used, and annually. SARs are required to be fit tested well.

2.3.32.5 Facial hair, glasses, etc. which might affect the seal of the respirator face piece are prohibited, and seal will be checked each time equipment is donned.

2.3.32.6 Periodic monitoring of the air quality in work areas will be performed to determine if, or where respiratory equipment will be required.

2.3.32.7 UF will maintain appropriate surveillance, and ensure employees leave the area to wash, change cartridges, or if they detect break-through or resistance.

2.3.32.8 If employees are required to work in Immediately Dangerous to Life or Health (IDLH) atmospheres, the following procedures and controls will be in place:

- One or more employees will be located outside the IDLH atmosphere.
- Visual, voice, or signal line communication is maintained between the employee(s) in the IDLH atmosphere and the employee(s) located outside the IDLH atmosphere.
- The employee(s) located outside the IDLH atmosphere are trained and equipped to provide effective emergency rescue.
- UF is notified before personnel enter the IDLH atmosphere, or before employee(s) located outside the IDLH atmosphere enter the IDLH atmosphere to provide emergency rescue.
- Employee(s) located outside the IDLH atmospheres will be equipped with:
  - ✓ Pressure demand or other positive pressure SCBA.
  - ✓ Appropriate retrieval equipment for removing the employee(s) who enter(s) these hazardous atmospheres

- 2.3.32.9 SAR and SCBA equipment will only be fitted by certified refilling facilities using grade D or better air. Oxygen will not be used in compressed air units and all cylinders will meet DOT requirements. Compressor will be located in a “clean” atmosphere, with in-line purification, and tagged to indicate date of change out. A carbon monoxide monitor will be in place and set to alarm at 10 PPM or monitored frequently. All line fittings will be incompatible for non-respirable gases and containers.
- 2.3.32.10 Where possible, ventilation will be required for all enclosed work areas to ensure that airborne hazards do not exceed permissible limits.
- 2.3.32.11 The least hazardous or toxic materials which will allow the job required to be accomplished will be used in the performance of work.
- 2.3.32.12 UF will maintain written records and information regarding medical evaluations, fit testing, and the Respiratory Protection Program. These records will promote employee involvement in the respirator program, assist in auditing the adequacy of the program, and provide a record for OSHA compliance. Records will be retained at the main office and be made available upon request to affected employees and to OSHA. Written records include the following:
- Required medical evaluations will be retained and made available.
  - Qualitative and quantitative fit tests administered to an employee including:
    - ✓ The name or identification of the employee tested.
    - ✓ Type of fit test performed.
    - ✓ Specific make, model, style, and size of respirator used.
    - ✓ The pass/fail results for qualitative fit tests or the fit factor and strip chart recording or other recording of the test results for quantitative fit tests.
- 2.3.32.13 Fit test records will be retained for respirator users until the next fit test is administered.