

4. Program Elements

4.1. Selection Procedure

The Respiratory Program Coordinator (RPC) will select respirators to be used on site, based on the hazards to which workers are exposed and in accordance with the OSHA standards. The RPC will conduct a hazard evaluation for each operation, process, or work area where airborne contaminants may be present in routine operations or during an emergency. The hazard evaluation will include:

1. Identification and development of a list of hazardous substances used in the workplace, by department, or work process.
2. Review of work processes to determine where potential exposures to these hazardous substances may occur. This review shall be conducted by surveying the workplace, reviewing process records, and talking with employees and supervisors.

The hazard evaluation may include exposure monitoring to quantify potential hazardous exposures. Monitoring will be conducted if the industrial hygienist conducting the evaluation determines that it is required. Monitoring will be performed by USO staff when needed.

4.2. Updating the Hazards Assessments

The department with the help of their respective RPAs and the Respirator Program Coordinator must revise and update the hazard assessment as needed (i.e., any time work process changes may potentially affect exposure).

If an employee feels respiratory protection is needed during a particular activity, they are to contact their immediate supervisor or RPA. The department with the assistance of RPC will evaluate the potential hazard. The department will then communicate the results of that assessment back to the employees. If it is determined that respiratory protection is necessary, all other elements of this program will be in effect for those tasks and this program will be updated accordingly.

4.3. NIOSH Certification

All respirators must be certified by the National Institute for Occupational Safety and Health (NIOSH) and shall be used in accordance with the terms of that certification. Also, all filters, cartridges, and canisters must be labeled with the appropriate NIOSH approval label. The label must not be removed or defaced while any of the above is in use.

4.4. Voluntarily Respirator Use

The department may provide respirators to employees for voluntary use at no charge. As a general policy the USO will review each of these requests on a case-by-case basis. The voluntary use of respiratory protection may be approved if it will not jeopardize the health or safety of the worker(s). The Program Administrator will provide all employees who voluntarily choose to wear respirators with a copy of Appendix D of the standard. (Appendix D details the requirements for voluntary use of respirators by employees). Employees choosing to wear a respirator must comply with the procedures for Medical Evaluation, Respirator Use, and Cleaning, Maintenance and Storage.

4.5. Medical Evaluation

Using a respirator may place a psychological and physiological burden on employees, which varies with the type of respirator worn, the job and workplace conditions in which the respirator is used, and the medical status of the employee. Each employee assigned a respirator in carrying out his/her job responsibilities is to receive a medical evaluation to determine his/her ability to use a respirator, before being fit tested or required to use the respirator in the workplace.

Employees who are required to wear respirators, or have special permission by USO to voluntarily wear a reusable air-purifying respirator (APR), must pass a medical exam before being permitted to wear a respirator on the job. Employees are not permitted to wear respirators until a physician or licensed health care professional (PLHCP) has determined that they are medically able to do so. Any employee refusing the medical evaluation will not be allowed to work in an area requiring respirator use.

Medical evaluation procedures are as follows:

- The medical evaluation will be conducted using the questionnaire provided in **Appendix C** of this respiratory protection program. The RPC will provide a copy of this questionnaire to all employees requiring medical evaluations.
- To the extent feasible, USO will assist employees who are unable to read the questionnaire (by providing help in reading the questionnaire). When this is not possible, the employee will be sent directly to the medical practitioner for medical evaluation.
- All affected employees will be given a copy of the medical questionnaire to fill out and they will bring the completed questionnaire to the medical practitioner. Employees will be permitted to fill out the questionnaire during working hours.
- Follow-up medical exams will be granted to employees as required by the standard, and/or as deemed necessary by the medical practitioner.
- All employees will be granted the opportunity to speak with the medical practitioner about their medical evaluation, if they request so.

The Respiratory Program Coordinator (RPC) has provided the Holzer Health Center a copy of this Respirator program and will provide the following information for each employee when requesting a medical evaluation:

- a summary of the employee's exposure to a hazardous substance
- his or her work area or job title
- proposed respirator type and weight
- length of time required to wear respirator
- expected physical work load (light, moderate, or heavy)
- potential temperature and humidity extremes
- any additional protective clothing required

After an employee has received clearance and starts to wear his or her respirator, additional medical evaluations will be provided under the following circumstances:

- Employee reports signs and/or symptoms related to their ability to use a respirator, such as shortness of breath, dizziness, chest pains, or wheezing.
- A physician informs the RPC that the employee needs to be reevaluated;

- Information from the program, including observations made during fit testing and program evaluation, indicates a need for reevaluation;
- A change occurs in workplace conditions that may result in an increased physiological burden on the employee.

All examinations and questionnaires are to remain confidential between the employee and the physician.

4.6. FIT Testing

Fit testing is required for employees wearing tight-fitting respirators. Employees voluntarily wearing half-facepiece APRs may also be fit tested upon request. Employees are to be fit tested prior to initial use of the respirator, or whenever a different respirator face-piece (size, style, model or make) is used, and at least annually thereafter. An additional fit test is conducted whenever the employee, supervisor, or the USO makes visual observations of changes in the employee's physical condition that could affect respirator fit. Such conditions include, but are not limited to, facial scarring, dental changes, cosmetic surgery, or an obvious change in body weight. The employee may select a different respirator if he/she does not think the respirator fit is acceptable, even after passing the fit test.

The RPC will conduct fit tests following the OSHA approved Irritant smoke QLFT Protocol, or the Bitter Aerosol QLFT Protocol in the Respiratory Protection standard.

4.7. General Use Procedures

Employees will use their respirators under conditions specified by this program, and in accordance with the training they receive on the use of each particular model. In addition, the respirator shall not be used in a manner for which it is not certified by NIOSH or by its manufacturer or for an exposure or work activity that is not approved by USO.

All employees not wearing disposable N95 respirators shall conduct user seal checks each time that they wear their respirator. Employees shall use either the positive or negative pressure check (depending on which test works best for them).

All employees shall be permitted to leave the work area to maintain their respirator for the following reasons: to clean their respirator if the respirator is impeding their ability to work, change filters or cartridges, replace parts, or to inspect respirator if it stops functioning as intended. Employees should notify their supervisor before leaving the area.

4.8. Respirator Malfunction

For any malfunction of an APR (e.g., such as contaminant breakthrough, facepiece leakage, or improperly working valve), the respirator wearer should inform his or her supervisor that the respirator no longer functions as intended, and go to a designated safe area to maintain, repair or replace the respirator. The supervisor must ensure that the employee receives the needed parts to repair the respirator, or is provided with a new respirator.

All workers wearing atmosphere-supplying respirators will work with a buddy. Buddies shall assist workers who experience a malfunction as follows:

If one of the workers experiences a respirator malfunction, he/she shall signal this to their buddy. The buddy must immediately stop what he or she is doing to escort the employee to a

safe area where the employee can safely remove the Respirator. Individuals must not work alone wearing an SAR or SCBA.

4.9. IDLH Procedures

The following procedures shall be followed in any area with a potential for Immediately Dangerous to Life and Health (IDLH) conditions:

- Workers entering this area shall wear a pressure demand Supplied-Air Respirator (SAR)
- An appropriately trained and equipped standby employee or, when needed, more than one employee shall remain outside the IDLH atmosphere and maintain constant voice and visual communication with the employee
- In the event of an emergency requiring the standby person to enter the IDLH environment, the standby person shall immediately notify RPA and/or a supervisor prior to providing necessary assistance appropriate to the situation.
- For a Permit Required Confined Space, employees shall also comply with all relevant entry procedures as mandated by Federal and State regulations, and University policies and procedures.

4.10. Air Quality

Any department using SARs shall maintain a minimum air supply of one fully charged replacement cylinder for each SAR unit. For SARs, only Grade D breathing air shall be used in the cylinders. The vendor is required to certify that the air in the cylinders meet the specifications of Grade D breathing air. Compressed oxygen shall not be used in atmosphere-supplying respirators, including open circuit Self-Contained Breathing Apparatus (SCBA(s)) that have previously used compressed air. This is to prevent possible fires and explosions.

4.11. Cleaning

Respirators are to be regularly cleaned and disinfected. Respirators issued for the exclusive use of a single employee is the preferred procedure and is recommended by USO. Respirators shall be cleaned as often as necessary, but at least once a day if used continuously. Atmosphere supplying and emergency use respirators are to be cleaned, inspected and disinfected after each use.

The following procedure is to be used when cleaning and disinfecting respirators:

- Disassemble respirator, removing any filters, canisters, or cartridges,
- Wash the facepiece and associated parts in a mild detergent with warm water. Do not use organic solvents,
- Rinse completely in clean warm water,
- Wipe the respirator with disinfectant wipes (70% Isopropyl Alcohol) to kill germs,
- Air dry in a clean area,

- Reassemble the respirator and replace any defective parts,
- Place in a clean, dry plastic bag or other air tight container.

The department RPAs will ensure an adequate supply of appropriate cleaning and disinfection material. If supplies are low, employees should contact their supervisor.

4.12. Maintenance and Inspection

Respirators are to be properly maintained at all times in order to ensure that they function properly and adequately protect the employee. Maintenance involves a thorough visual inspection for cleanliness and defects. Worn or deteriorated parts will be replaced prior to use. No components will be replaced or repairs made beyond those recommended by the manufacturer. Repairs to regulators or alarms of atmosphere-supplying respirators will be conducted by a service agent licensed by the manufacturer of the SAR.

Inspection of the respirator must be conducted before every use. The following checklist will be used when inspecting respirators:

<p>Facepiece: cracks, tears, or holes facemask distortion cracked or loose lenses/faceshield</p>	<p>Valves: residue or dirt cracks or tears in valve material</p>	<p>Air Supply Systems: breathing air quality/grade condition of supply hoses hose connections settings on regulators and valves</p>
<p>Headstraps: breaks or tears broken buckles</p>	<p>Filters/Cartridges: approval designation gaskets cracks or dents in housing proper cartridge for hazard</p>	

Employees are permitted to leave their work area to perform limited maintenance on their respirator in a designated area that is free of respiratory hazards. Situations when this is permitted include to wash their face and respirator face piece to prevent any eye or skin irritation, to replace the filter, cartridge or canister, and if they detect vapor or gas breakthrough or leakage in the face piece or if they detect any other damage to the respirator or its components.

Repairs or adjustments to respirators are to be made only by persons appropriately trained to perform such operations and shall use only the respirator manufacturer's NIOSH-approved parts designed for the respirator. Repairs shall be made according to the manufacturer's recommendations and specifications for the type and extent of repairs to be performed. and reducing and admission valves, regulators, and alarms will be adjusted or repaired only by the manufacturer or a technician trained by the manufacturer.

4.13. Storage

Respirators must be stored so they are protected against damage, contamination, dust, sunlight, extreme temperatures, excessive moisture, and damaging chemicals, and/or in accordance with the manufacturer's recommendations. The facepiece and exhalation valve must be stored in a manner that will prevent deformation. Each respirator should be positioned so that it retains its natural configuration. Each employee will clean and inspect their own air-purifying respirator in accordance with the provisions of this program and will store their respirator in a plastic bag. Employees will have their name on the bag and that bag will only be used to store that employee's respirator.

Departments will store their supply of respirators and respirator components in their original manufacturer's packaging. Respirators intended for emergency use must be kept accessible to the work area, but not in an area that might itself be involved in the emergency because such an area may become contaminated or inaccessible.

4.14. Defective Respirators

Respirators that are defective or have defective parts shall be take out of service and given to the RPA. If, during an inspection, an employee discovers a defect in a respirator, he/she is to bring the defect to the attention of his or her supervisor. Supervisors will give all defective respirators to the RPA who will decide whether to:

- Temporarily take the respirator out of service until it can be repaired.
- Perform a simple fix on the spot such as replacing a head strap.
- Dispose of the respirator due to an irreparable problem or defect.

When a respirator is taken out of service for an extended period of time, the respirator will be tagged out of service, and the employee will be given a replacement of similar make, model, and size. All tagged out respirators will be kept in the USO.

4.15. Training

The Respirator Program Coordinator (RPC) will provide/coordinate training to respirator users and their supervisors on the contents of the Florida Tech Respiratory Protection Program and their responsibilities under it, and on the OSHA Respiratory Protection standard. Workers will be trained prior to using a respirator in the workplace. Supervisors will also be trained prior to using a respirator in the workplace or prior to supervising employees who must wear respirators.

The training course will cover the following topics:

- The Florida Tech Respiratory Protection Program
- The OSHA Respiratory Protection standard
- Proper selection and use of respirators
- Limitations of respirators
- Respirator donning and user seal (fit) checks
- Fit testing
- Emergency use procedures (if applicable)
- Maintenance and storage
- Medical signs and symptoms limiting the effective use of respirators

Employees will be retrained annually or as needed (e.g., if they change departments and need to use a different respirator). Employees must demonstrate their understanding of the topics covered in the training through hands-on exercises, i.e. correctly donning and doffing the respirator. Respirator training will be documented by the RPA and the documentation will include the type, model, and size of respirator for which each employee has been trained and fit tested.