
1. **Routine Use**

1.1. When carried on apparatus, Self-Contained Breathing Apparatus (SCBA) shall be secured in brackets or carrying cases and shall be stored in a manner protecting regulator openings and face piece from contamination by dirt, dust or weather conditions. SCBA shall be inspected daily. Units in storage will be inspected monthly.

1.2. SCBA and the NIOSH approved N95 particulate respirators shall be stored in a ready-for-use condition, protected from damage or exposure to rough handling, excessive heat or cold, moisture, or other elements.

1.3. SCBA units must be available for each staffed position on a vehicle. A reserve air supply shall be provided through either a reserve cylinder or on-scene refill capability, or both.

2. **Emergency Scene Use**

2.1. Respiratory protection shall be used by all personnel exposed to respiratory hazards or that may be exposed to such hazards without warning. SCBA shall be required at all times during any fire fighting or overhaul operations.

2.2. Respiratory protection equipment shall be used by personnel operating in confined spaces, below ground level, or where the possibility of a contaminated or oxygen deficient atmosphere exists, unless it can be established by monitoring or continuous sampling that the atmosphere is not contaminated or oxygen deficient. Medical emergencies will require use of the N95 respirator for TB exposure control. When worn properly, and in combination with protective eyewear, it complies with the OSHA Bloodborne Pathogens Standard. Note: The N95 should be changed immediately if contaminated with blood or body fluids.

2.3. When used, respiratory equipment shall be worn according to the manufacturer's requirements.

2.4. Personnel shall be monitored for indications of fatigue or other factors, which may result in unsafe conditions.

2.5. Members using SCBA shall operate in teams of two or more who are in communications with each other through visual, audible, physical, safety guide rope, electronic, or other means which coordinate their activities. These members must be in close proximity of each other to provide assistance in case of an emergency.

2.6. When members are involved in operations requiring the use of SCBA, one member shall be responsible for maintaining a constant awareness of the number and identity of personnel using SCBA, their location, function, and time of entry. Members with SCBA shall be available for rescue.

2.7. Unapproved SCBA components or approved components that have been modified in a manner that voids their approval shall not be used.

2.8. Respiratory protection face piece and head harness with straps shall be worn in such a manner that the straps are covered by the Nomex hood. Helmets shall not interfere with the respiratory protection face piece to face seal.

3. **Training**

3.1. All fire fighters that engage in fire fighting/rescue and hazardous materials operations shall be certified in the use of SCBA. This must be in a written record.
3.2. Documentation of such shall be made in the member's AF Form 55. Additionally, all personnel who use respiratory equipment shall be medically certified annually, by a physician IAW NFPA Standard 1582.

3.3. The face piece seal capability of each qualified member shall be verified initially upon reporting for duty by means of quantitative fit testing for the SCBA mask as well as annually thereafter, and any time new SCBA masks are issued. A one time qualitative fit test is required for the N95 respirator. Each member shall be medically cleared and fit-tested before being permitted to use SCBA in a hazardous atmosphere. A written record will be maintained on each member to substantiate their certification. Only members with a properly fitting face piece shall be permitted to function in a hazardous atmosphere.

3.4. Beards or facial hair interfering with the face piece are prohibited for all fire protection personnel. If eyeglasses are worn, the person shall use frames that do not pass through the seal of the face piece.

3.5. All fire fighters shall meet the training and performance requirements of NFPA 1404 prior to engaging in actual emergency operations during which they may be expected to wear respiratory protection equipment, and annually thereafter.

3.6. All training related to the use maintenance, and care of SCBA shall be provided by instructors certified as Instructor I, or instructors that have been trained and certified by a SCBA manufacturer or authorized distributor.

4. SCBA Maintenance

4.1. Qualified personnel shall conduct all maintenance and repairs on SCBA, in accordance with manufacturer's instructions.

4.2. Qualified personnel shall conduct annual inspections and servicing of SCBA and at any time an operational problem is reported.

4.3. Annual inspections and servicing shall include at least the following components and the manufacturer's recommendations:

4.4. Disassembling of SCBA into major components.

4.5. Flow testing the regulator.

4.6. Disassembling and cleaning of the regulator.

4.7. Replacement of worn parts, or those suggested by manufacturer, in regulator assemblies.

4.8. Disassembling of low air alarm, cleaning and replacement of necessary components.

4.9. Cleaning and replacement of needed components of the face piece and harness assembly, and replacement of components as needed or scheduled. When cleaning the face piece, wash in warm (110°F maximum) water with a mild detergent or with a cleaner recommended by the manufacturer (in either case, it must contain a disinfectant). A stiff bristle (not wire) brush may be used to facilitate the removal of dirt. Rinse components thoroughly in clean, warm (110°F maximum), preferably running water. Drain, and allow the mask to air dry.

4.10. Reassembling the entire SCBA and testing for proper operation of all components.

4.11. Proper recording of all maintenance performed on our automated product, and return of SCBA to service.

4.12. Preventive maintenance shall be performed as required by personnel who hold current a certification from Interspiro.

5. Breathing Air Program

5.1. Air quality shall be tested quarterly IAW T.O. 42B-1-22 & AFOSH 48-137, and USAFA Instruction 48-137. Test results will be maintained for a period of one year. In addition, a copy of each test result shall be forwarded to Bioenvironmental Engineering immediately upon receipt. Test samples shall be obtained from the regular production of the compressor and storage system. Immediate notification from the testing facility of air not meeting the
specification of applicable Federal and Air Force standards is mandatory. If required air quality standards are not maintained, the air compressor will be placed out of service and use will be discontinued until repairs are made and an air sample verifies air quality.

5.2. Any air cylinder filled with air suspected of not meeting air quality standards shall be emptied and purged.

6. **Recharging Air Cylinders**

6.1. The air cylinders of all Interspiro SCBA shall be maintained at not less 4000 PSI.

6.2. Only breathing air obtained from our breathing air system or equivalent system shall be used in the SCBA. Qualified personnel using proper safety equipment and procedures shall conduct refilling.

6.3. The proper operating procedures and safety precautions for use of the air compressor shall remain conspicuously posted at the fill station.

6.4. Personnel assigned to operate fill station equipment shall visually inspect all cylinders before filling. Cylinders not meeting manufacturer's requirements due to defects or damage, or not meeting hydrostatic test requirements, shall be left unfilled, tagged, and removed from service.

6.5. All cylinders shall be refilled according to manufacturer's instructions.

6.6. The air compressor shall be maintained according to the manufacturer's instructions.

6.7. An automated product shall be maintained for the air compressor and related equipment used to produce and store air for SCBA. The record shall indicate the date of purchase, locations, inspections, maintenance, and testing of the device.

7. **SCBA In-Service Inspection**

7.1. Daily inspections of all SCBA shall be conducted, and after each use.

7.2. Positive pressure check. Close off the exhalation valve and exhale gently into the face piece. The face fit is considered satisfactory if a slight positive pressure can be built up inside the face piece without any evidence of outward leakage of air at the seal.

7.3. Negative pressure check. Close off the exhalation valve by covering with the palm of the hand(s), inhale gently so that the face piece collapses slightly, and hold the breath for ten seconds. If the face piece remains in its slightly collapsed condition and no inward leakage of air is detected, the tightness of the face piece is considered satisfactory.

7.4. Monthly inspections shall be conducted on all major components IAW the manufacturer's recommendation.

8. **Program Review**

8.1. An annual review of this respiratory protection program shall be conducted by Bioenvironmental Engineering.

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