

**Barkhamsted Fire District**

**Self Contained Breathing Apparatus**

**Standard Operating Procedure**

**October 1, 2002**

**In accordance with OSHA 29 CFR 1910.134**

**PURPOSE:**

- To establish a guideline to indicate the proper maintenance, training, use, and cleaning of self-contained breathing apparatus in order to ensure the safety of the fire department personnel. To meet the requirements of the Respiratory Standard and Fire Brigade Standards

**RESPONSIBILITY:**

- It is the responsibility of the Chief or a designated officer to assure that the SCBAs are kept in working order and that all member of the fire department are trained in accordance with the written policy and Standard Operating Procedure.

**POLICY:**

**Inspection and Records:**

- An assigned person shall make monthly inspections on all SCBA in use. The inspections shall consist of a checking the entire unit for deteriorated components, air tightness of cylinders, valves, gauge comparison, reducing valve, and bypass valve operation, regulator, exhalation valve and low air alarm. The face piece and harness shall also be visual inspected. The entire SCBA will be cleaned and dried, if necessary. The P.A.S.S. device shall be tested and attached to each of the SCBA. The hydro test dates will be checked on each cylinder and sent to be hydro tested if needed. Records shall be kept on each of the inspection. If there is any malfunction found the SCBA shall be taken out of service until it is repaired.
- Inspections shall be made before and after each use. This inspection shall consist of a visual check of the face piece, harness, and cylinder pressure. The user shall also check for leaks, gauge comparison, proper fit, and the air bottle is fully charged.
- A qualified person shall conduct annual inspection and service of SCBA; this inspection shall be preformed according to manufactures recommendations.

**Maintenance:**

- SCBAs that need maintenance work done to them; will be done by trained maintenance personnel only. If repair work is needed on a SCBA it shall be taken out of service, tagged with a note describing the problem, and reported to the officer in charge. O-rings are the only part that can be replaced by a firefighter; at no time shall any firefighter open the regulator to do repairs.

**Training:**

- SCBA instructors shall train emergency responding firefighters, the firefighter shall pass all requirements and documentation of training should be on file with each respective department.
- The firefighter shall demonstrate competence in the proper donning and doffing procedures, identifying hazardous areas, and knowledge of equipment. Training shall be provided for SCBA practice during the year.

**Emergency Scene Use:**

- SCBA will be used by all firefighter who are exposed to respiratory hazards or will respond to IDLH immediately dangerous to life and health atmospheres without warning. The hazards can include car fires, dumpster fires, interior structure fires, outside area where there is a possibility to encounter heat and/or smoke, liquid propane leaks, chemical contaminated areas, oxygen deficient areas, and any other hazardous atmosphere.
- Responding firefighters shall abide by OSHA's two in and two out rule when entering hazardous areas. Firefighters must maintain constant communication with each other. It is critical to account for the number, identities, location, function, and time of entry, of the firefighters inside.
- At no time shall the integrity of the SCBA be breached.
- Two firefighters with SCBAs shall be "standing by," available for rescue, this is also known as a Rapid Intervention Crew.
- When the evacuation signal is sounded (three long blasts of an air horn, pause then repeated until everyone is accountable), everyone inside the hazardous area will immediately withdrawal from the building and report to staging for roll call.

**Face Piece Seal:**

- Eyeglass frames, facial hair, and beards that interfere with the seal of the face piece shall be prohibited. This mean there shall be skin contact around the whole seal.
- Annual fit test program shall be conducted on each firefighter qualified to wear a SCBA upon medical clearance.

**Personal Protective Equipment:**

- Personal protective equipment shall be worn in accordance to Standard Operating Procedure # 2.
- All SCBAs must be provided with and indicator that automatically sounds and audible alarm when the remaining service life of the apparatus is reduced to within a range of 20-25 percent of its rated service time.
- The P.A.S.S. device shall also be worn and activated.

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- Nomex hood shall be worn over the face piece harness.
- All respirators worn for interior structural fire fighting operations must be of the pressure demand or positive pressure type.

**Two Bottle Rule:**

- Firefighter that use two air bottles shall report to rehab or ambulance crew to have vitals checked. This will allow the firefighter time to recover, rehydrate, and be monitor for signs of fatigue. If the incident should continue, rehab shall be needed between each bottle after the initial two bottles.

**Low Air Alarm:**

- When the low air alarm is activated for any reason, all firefighters on the team will exit the hazardous area.

**Cascade System:**

- Only trained firefighter shall fill air bottles form the cascade system.
- A mobile cascade system should be used at incidents that will deplete the supply of air bottles.

**Cleaning and Returning to Service:**

- Return all straps to the loosest position.
- It is recommended to follow manufacturers guidelines for cleaning procedures
- Clean harness, airlines, and regulator of dirt and debris, using air hose (wear safety goggles), brush, or wash with warm water and mild detergent, than rinse with warm water.
- Clean face piece with 10:1 warm water, bleach solution, rinse with warm water, then spray with disinfectant, allow setting for 10 minutes, and then rinsing with warm water.
- Replace air cylinder with full air cylinder, the pressure shall be between 2000 PSI and 2216 PSI.
- The SCBA need to be fully dried before they are returned to service.

**Conclusion:**

- It is for the safety of ever firefighter to keep the self-contained Breathing Apparatus in proper condition. Regular inspections, maintenance, and training of the SCBAs can accomplish the level of safety needed during an emergency. It is essential to use the SCBAs whenever the situation dictates and to follow this standard operating procedure. Following this standard operating procedure will help in preventing injuries that can occur from smoke and heat that can damage your lungs. These injuries can have an acute or chronic, effect on your health. The chronic effects may not be noticed for years.