

# Fauquier County Department of Fire Rescue

## **OPERATING PROCEDURE**

No. 709

### **Self-Contained Breathing Apparatus**

Effective Date: March 1, 2012

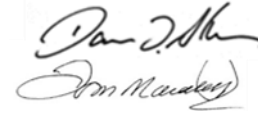
Page 1 of 8

Revision Date: February 23, 2021

Forms:

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## **PURPOSE**

To provide guidelines for the maintenance and repair of respiratory protection equipment and comply with OSHA 29 CFR 1910.134.

## **SCOPE**

This policy applies to all Class A certified members of the Fauquier County Fire and Rescue System (this includes Career and Volunteer personnel). All personnel who may be required to wear an SCBA and respirator will be familiar with the inspections and maintenance of such equipment, as outlined in this document.

## **I. PROCEDURE**

- A. The Logistics Officer will ensure that SCBAs are clearly marked with the station to which they are assigned. Stations will not exchange SCBA amongst themselves or apparatus unless approved by Logistics Officer.
- B. In-Service SCBA will be stored in a ready-for-use condition with cylinders maintained at the full level (at a minimum of 4000 psi) and all harness straps will be adjusted to their maximum length.
- C. In all instances, SCBA will be stored in a manner to control and minimize exposure to shock, vibration, sunlight, heat, extreme cold, excessive moisture, damaging chemicals, and environmental elements.
- D. Personnel will not reseat by backing the SCBA into the apparatus mounting bracket. This can cause damage to the cylinders and/or brackets.
- E. SCBA that are taken out of service due to injury or death of the wearer or an operational failure shall be tagged and retained by the incident commander, command staff chief officer or the station chief pending retrieval from the Logistics Officer.

**Desire to Serve**

**Ability to Perform**

**Courage to Act**

<b>Self-Contained Breathing Apparatus</b>		No. 709
Effective Date: March 1, 2012	Revision Date: February 23, 2021	Page 2 of 8

F. All breathing air cylinders will be refilled only from a cascade system.

## **II. INSPECTION**

A. SCBA located on any apparatus that may be used during your shift will be checked at the beginning of each workday and after each use. Such inspections will be documented using the SCBA Inspection Form.

1. For SCBA assigned to primary apparatus/vehicles, each member is responsible for inspecting the SCBA assigned to his/her riding position once a day. All SCBA assigned to the secondary/occasional apparatus/vehicle will be inspected by the driver/operator or designee once every seven days.
2. Daily checks of SCBA on primary response apparatus will be documented using the Apparatus Daily Check Sheet. Weekly inspections of SCBA will be documented utilizing the weekly inspection forms provided by logistics. Stations will not be permitted to alter these forms in any way unless first communicating with the logistics officer.

B. Face piece inspection will include the following:

1. Check for deterioration, dirt, cracks, tears, holes, pliability, and tackiness.
2. Check the head-harness buckles, strap, and webbing for breaks, loss of elasticity, or wear.
3. Check the lens for holes, cracks, scratches, heat-damaged areas, and proper seal with the face piece material.
4. Check the regulator connection(s) for proper operation and damage.
5. Check the speaking diaphragm and voice amp (where present) for damage and operability.

<b>Self-Contained Breathing Apparatus</b>		No. 709
Effective Date: March 1, 2012	Revision Date: February 23, 2021	Page 3 of 8

C. Back frame and harness assembly inspection will include the following:

1. Check the harness straps and back frame for cuts, tears, abrasion, indications of heat damage, and indications of chemical-related damage.
2. Check all buckles, fasteners, and adjustments for proper operation.
3. Check the cylinder retention system for damage and proper operation, and checking that the cylinder is securely attached to the back frame.
4. Check that the harness straps are fully extended.

D. Cylinder assembly inspection will include the following:

1. Check that the hydrostatic test date on the cylinder is current. (Must be within 5 years of the last HYDRO date).
2. Check the gauge for damage.
3. Check the cylinder for cracks, dents, weakened areas, indications of heat damage, and indications of chemical damage, cuts, gouges, loose composite materials, or absence of resin.
4. Check the cylinder valve outlet sealing surface and threads for damage.
5. Check the valve hand wheel for damage, proper alignment, serviceability, and secure attachment.
6. Check that the cylinder is fully charged.

E. Hose inspection will include the following:

1. Check for cuts, abrasions, bubbling, cracks, heat damage, and chemical damage.
2. Check external fittings for visual signs of damage.

## Self-Contained Breathing Apparatus

No. 709

Effective Date: March 1, 2012

Revision Date: February 23, 2021

Page 4 of 8

3. Check for tight connections.
4. Check for noticeable air leaks.

F. Regulator inspection will include the following:

1. Check regulator controls for damage and proper operation.
2. Check Heads-Up Display (HUD) to ensure LED lights working and accurate.
3. Check housing and components for damage.
4. Check the regulator for any unusual sounds during operation.
5. Check the regulator and bypass for proper function when each is operated.
6. Check VIB-A-LERT activation as pressures approach 1000PSI.

G. Pressure indicator (CONSOL) inspection will include the following:

1. Check the pressure indicator for damage.
2. Check that the cylinder pressure gauge and the remote gauge read within 10 % of each other.
3. Check that the RED button manually activates the INTEGRATED PASS ALARM and the YELLOW button resets the alarm.

H. As the final inspection item, the entire SCBA will be checked for pressure retention by closing all regulator valves, opening the cylinder valve thereby pressurizing the SCBA, and then closing the cylinder valve.

I. The SCBA will hold system pressure in accordance with the manufacturer's specifications after the cylinder valve is closed.

# Self-Contained Breathing Apparatus

No. 709

Effective Date: March 1, 2012

Revision Date: February 23, 2021

Page 5 of 8

J. Following the pressure check, the system pressure will be released.

## III. MAINTENANCE

- A. The face piece will be thoroughly cleaned after each use utilizing Fresh Gear disinfectant, this solution will be provided by the Logistics Officer or designee.
- B. Personal issued regulators should be cleaned and disinfected after each use. To disinfect the regulator:
  - 1. Spray a minimum of six pumps of approved disinfectant into the regulator opening.
  - 2. Swirl to completely cover internal components.
  - 3. Allow disinfectant to soak approximately 10 minutes.
  - 4. Turn regulator with opening facing downward and shake excess liquid out.
  - 5. Rinse regulator with clear drinking water, and shake excess water from regulator. Completely air dry the adapter before use.
  - 6. To speed drying, a maximum of 30psi compressed air pressure may be used.
- C. Where SCBA is suspected of being contaminated, it will be tagged out-of-service and segregated from other equipment and personnel. Tags will include details of the incident including known and suspected contaminants.
- D. Personnel will contact the Logistics officer to determine how to properly decontaminate.
- E. In all cases, decontamination will be in accordance with the SCBA manufacturer's instructions.

<b>Self-Contained Breathing Apparatus</b>		No. 709
Effective Date: March 1, 2012	Revision Date: February 23, 2021	Page 6 of 8

- F. When it is determined that the SCBA is contaminated beyond the ability to decontaminate, it will be destroyed and disposed of by the Logistics officer.
- G. Under no circumstances should chlorine bleach be used to clean any part of the SCBA.
- H. Personnel will use caution to prevent water or cleaning products from entering the connection between the cylinder valve and the mating SCBA inlet connector or regulator.

#### **IV. FILLING AIR CYLINDERS**

- A. Air quality checks are performed quarterly by the Logistics Officer or designee.
  - 1. The results of these tests are posted in a conspicuous location near the compressor.
- B. Mobile units (Light and Air Units, Rescue Squads, etc.) which have cascade systems must be equipped with fragmentation containers to hold cylinders being filled.
- C. Prior to filling SCBA cylinders, personnel will inspect the condition of the cylinder and verify the hydrostatic test date to determine of the cylinder should remain in service.
  - 1. Cylinders that are damaged or out of date will be placed out of service, as discussed in previous section.
  - 2. Personnel will post detailed instructions on how to fill SCBA cylinders in conspicuous location near stationary and mobile cascade systems.
- D. Personnel will use the Cylinder Fill Log to document each time a cylinder is filled.

#### **V. TESTING AND REPAIR**

- A. The Logistics Officer will perform an annual SCBA Flow test that complies with applicable NFPA Standards.

<b>Self-Contained Breathing Apparatus</b>		No. 709
Effective Date: March 1, 2012	Revision Date: February 23, 2021	Page 7 of 8

- B. Repairs or alterations to any air compressors, cascade systems, or light and air units will be performed only by department-approved personnel.
- C. Only trained and certified personnel will repair and/or modify SCBA and face pieces, this does not include battery replacement.
- D. Personnel are allowed to change low batteries using approved type batteries, but must notify the Logistics Officer for tracking purposes.
- E. Personnel will remove an SCBA or cylinder that is in need of repair from service and tag it using a red tag provided by the Logistics Officer, detailing the problem(s) with the SCBA/cylinder along with the employee's name and contact information.
  - 1. Any SCBA component directly exposed to intense heat, chemicals, or water immersion will be placed out of service and the OIC and/or Logistics Officer will be notified.
  - 2. Any SCBA cylinder that has been dropped or struck by a vehicle will be placed out of service and the OIC and/or Logistics Officer will be notified.

## **VI. DOCUMENTATION**

- A. Station officers will maintain SCBA Inspection Forms for all breathing apparatus assigned to their stations.
  - 1. SCBA Inspection forms will be provided to each station by logistics personnel
  - 2. Logistics inspection forms may not be altered without the approval of logistics personnel and senior management
  - 3. Inspection forms will be utilized for all weekly and daily inspection/checks of SCBA
  - 4. All inspection forms will be maintained within a dedicated Logistics folder contained in the SharePoint program.

## Self-Contained Breathing Apparatus

No. 709

Effective Date: March 1, 2012

Revision Date: February 23, 2021

Page 8 of 8

5. It shall be the responsibility of the station officer or senior technician to ensure SCBA inspections are completed and documented on an appropriate log.
  - B. For compressors, station officers will maintain an appropriate log.
    1. These forms will be retrieved and maintained by the Logistics Officer during the quarterly air testing sampling process.
  - C. The Logistics Officer will maintain all written and/or electronic records of assignment, repair, replacement of SCBA, cylinders, hydrostatic test date, compressor testing, etc.
  - D. Lost or damaged equipment will be reported to the appropriate officer or equivalent supervisor immediately so that the appropriate documentation can be completed and, if necessary, obtain a replacement.