SCBA INSPECTION AND MAINTENANCE

Reference: NFPA 1001, 5.5.1 2008 Edition

JPR Identification:

Purpose: The purpose of this skill is to ensure the firefighter can demonstrate proper identification and inspection procedures for Self Contained Breathing Apparatus (SCBA). Due to the importance of SCBA units during fireground operations, it is imperative that all personnel can identify issues involving their SCBA’s. As a result of SCBA inspections and regular maintenance, failures or other problems will be reduced or eliminated before the firefighter is caught in an IDLH atmosphere. Each firefighter will demonstrate the ability to properly inspect and perform basic maintenance on SCBA’s.

Performance Outcome: The firefighters will identify, inspect, and clean all aspects of the SCBA. This evolution shall be completed while wearing the proper PPE. This station will require that the individual inspect and, perform any required maintenance, and properly clean the SCBA unit. There are no established timeframes for this evolution as thoroughness is the most critical factor. Note: this evolution may be adjusted by the company officer to fit the need of his/her specific crew members.

Materials Required: Personal Protective Equipment
Self Contained Breathing Apparatus

Note: It is the discretion of the company officer what props and configuration are utilized for this company skill.

Critical Teaching Points:
1. Remind firefighters to be thorough in all aspects of this skill as the SCBA is such a critical piece of equipment.
2. Proper PPE should remain in place at all times.
3. 
4. The evolution may be adjusted to meet the needs of the crew or to address any specific deficiencies that have been identified at the discretion of the company officer.
5. Ensure that all evolutions are conducted in controlled situations so the firefighter gains confidence is his/her ability to conduct SCBA inspections and maintenance.
SCBA Inspection and Maintenance

1. Ensure that all components of the SCBA are present; harness assembly, cylinder, facepiece, and PASS device.
2. Remove the cylinder from the harness and check all straps for extensive wear and ensure all straps are fully extended. Check the backpack for any damage, cracks, broken welds, or excessive wear.
3. Check the high pressure hose between the regulator and the cylinder for any damage or excessive wear.
4. Replace the cylinder into the backpack or harness.
5. Check condition of cylinder for cleanliness and damage. The threads and gasket of the cylinder should be inspected. The backpack/cylinder strap should be inspected for tightness and operation. The hydrostatic test date should also be confirmed (Composite and fiberglass – 3 years).
6. Check cylinder air pressure and ensure that it is at least 90% full (4050 psi).
7. Fully open cylinder valve, confirm low pressure alarm, and ensure main gauge are within 100 psi or 10% of one another.
8. Check all hose and connections for integrity and air leaks.
9. Activate integrated PASS and check heads up display if equipped.
10. Inspect low pressure regulator for cleanliness and defects, including o-rings.
11. Inspect all hoses and fitting for tightness and wear.
12. Inspect facepiece for cleanliness, damage, and exercise all head straps.
13. Don facepiece and check for proper seal and operate exhalation valve if equipped.
14. Attach regulator to facepiece and check regulator function by taking normal breaths.
15. Operate by-pass and / or purge valve.
16. Remove facepiece, turn off cylinder and relieve pressure using the by-pass valve.
17. Return SCBA to ready state by turning off by-pass valve, extending all straps and turning-off the integrated PASS.

Cleaning the SCBA

1. Upon completion of inspection, remove the facepiece from the regulator and the cylinder from the SCBA harness.
2. Remove all parts of the unit with clean water to remove any debris.
3. Use soap and water and scrub the cylinder and harness with a brush.
4. Rinse the harness and cylinder off and set out to dry.
   Note: use manufacturers’ recommendations for cleaning solutions and methods if applicable.
5. Place the facepiece in the soap and water solution.
6. Clean the regulator with the soap and water solution and necessary use a small bristle brush. Note: avoid getting soap and debris inside the regulator.
7. Rinse the facepiece and regulator with clean water and let dry.
8. Reassemble the unit before [placing back into service. 

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