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| | **Standard Operating Procedures** | |
| | **SOP 48** | |
| | **Subject: SCBA and PASS Inspection and Repair** | |
| | **Approval Date: 05/2019** | |
| | **Date Created: 12/2014** | |
| | **Next Review: 05/2020** | |
| | **Approved By: Fire Chief/Fire Marshal Brent Hahn** | |

## 48.01 Background

Texas Government Code 419.047 gives the Texas Commission on Fire Protection (TCFP) the authority to "enforce sections … 419.041 (SCBA) and 419.042 (PASS)". The Commission may adopt minimum standards consistent with those sections. In exercising this authority, the Commission has adopted Chapter 435: Firefighter Safety into its rules. In Chapter 435, Section 3, TCFP requires fire departments to "ensure that an SCBA that is assigned to an individual user or in-service apparatus be inspected at the beginning of each duty period and where an SCBA is not assigned to an individual user or first out apparatus for a duty period, the inspection shall be performed at least weekly, and shall include a check of the entire unit for deteriorated components, air tightness of cylinders and valves, gauge comparison, regulator and bypass valve operation, and check of the regulator connection, exhaust valve (in mask) and low-air alarm.

The inspection shall comply with the minimum standards of the National Fire Protection Association (NFPA). The Self-Contained-Breathing-Apparatus (SCBA) shall be clean and ready for service. Fire departments are further required to "maintain and supply upon request by the Commission, records and reports documenting compliance with Commission requirements concerning self-contained breathing apparatus". Section 9 governs Personal Alert Safety Systems (PASS) devices. Fire departments are required to "ensure that the PASS devise assigned to an individual user or first out apparatus be inspected at the beginning of each duty period".

## 48.02 Purpose

To initiate an inspection schedule of Self-Contained Breathing Apparatus (SCBA) and Personal Alert Safety Systems (PASS) devices that ensures compliance with Texas State Law and provides for the safety of Kemah Fire Department (KFD) Personnel.

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**48.03 Policy**

All SCBA and PASS devices shall be inspected within the appropriate time period. The SCBA assigned to an individual or first out apparatus shall be inspected at the beginning of each shift that is manned by qualified personnel. If the SCBA not assigned to an individual or first out apparatus shall be inspected at least weekly (or according to truck rotation). All SCBA shall be inspected after each use. The inspection records shall be collected and maintained by the Station Captain assigned designee by the Fire Chief/Fire Marshal, with deviations reported to the Fire Chief/Fire Marshal or as required by State Law.

**48.04 Procedures**

Each SCBA and PASS shall be inspected as follows:

1. Visually inspect the complete face piece for worn or aging rubber parts, worn or frayed harness webbing or damaged components.
2. Visually inspect the cylinder for dents or gouges in the metal or in the fiberglass wrapping.
3. Check the air cylinder for indication of 4100 to 4500 psi; if it's less than 4100 psi replace or "top-off" the cylinder. If the cylinder is significantly low, pull it out of service to be evaluated for leaks.
4. Check to ensure that the first stage regulator coupling is hand tightened to the bottle valve outlet.
5. Make sure that the breathing regulator purge valve is closed.
6. Slowly open the cylinder valve fully by rotating the knob counterclockwise. The low air alarm should briefly sound, then stop. There should be no airflow from the face piece. The lights on the PASS should flash indicating function in the monitor mode.

7. Compare the air pressure indicated on the two gauges. They should be within 100 psi of each other. If grossly out of compliance, the SCBA should be taken out of service, visibly tagged as out of service, and the problem reported to the Station Captain assigned designee by the Fire Chief/Fire Marshal.
8. Dock the regulator in the face piece.
9. Hold the facemask to the face insuring a good seal. Note: Beard or facial hair may not be in the area of the seal of the user.
10. Inhale sharply to automatically start the flow of air. Breathe normally from the facemask and check for normal airflow and operation.
11. Check Heads-Up Display in lower right corner to see if 4 green bars are illuminated. Check flashing yellow lights. One flash is low battery on mask. Two flashes are low battery in the transmitter.
12. Depress button to turn on and check voice amplifier. Red light should come on (if equipped).
13. Depress the air control switches on the regulator and remove the regulator from the facemask. The flow of air should stop.
14. Depress the purge valve. Air should flow freely from the regulator. Depress the air control witches and the flow of air should stop.
15. Hold the unit motionless. The flashing green lights on the PASS device will change to red and a pre-alert tone will be sounded.
16. Move the SCBA to reset the PASS to the monitor mode.
17. Hold the SCBA motionless, allowing it to go into the pre-alert mode, then 8 – 10 seconds longer, allowing it to go into the full alarm mode. Full alarm mode should consist of flashing red lights and a loud audible alert.
18. Manually reset the PASS by pressing the reset buttons. Movement will not reset the device when it is in alarm mode.
19. Test the PASS device by pressing the alarm button.
20. Manually reset the PASS by pressing the reset buttons.

21. Close the cylinder valve.
22. Open the purge valve to release any air from the system. The low-pressure alarm should activate when the pressure drops below 1000 psi on the reserve gauge.
23. When the airflow stops, reset the purge valve.
24. Press the PASS reset buttons to turn the unit off.
25. Ensure that the SCBA is clean and ready for service.
26. Complete the inspection record (SCBA Daily Checklist).
27. Cleaning and Decontamination (KFD shall provide each respirator user with a respirator that is clean, sanitary, and in good working order. The respirators shall be cleaned and disinfected after each incident and training session).

**Regions to clean on SCBA**

1. External surfaces of the equipment
2. Facepiece
3. Exhalation valve cleaned and flushed
4. Exhalation valve cycled to ensure proper operation
5. Internal components when exposed to body fluids, exhaled air, dust, and debris
6. Straps and Harness assemblies
7. Cylinder valve assemblies

**Testing**

- SCBA units shall be tested ANNUALLY in accordance with NFPA 1852.
- All equipment used to test SCBA units shall meet the requirements of NFPA 1852.

**Repairs**

1. If the PASS device or low-pressure alarm has a low battery:
    a. Take the unit out of service pending battery replacement.
    b. Document the battery replacement on the SCBA/PASS checklist.

2. When an SCBA, mask or PASS device requires service:
    a. The unit will immediately be taken out of service and marked in such a manner that no member will mistakenly attempt to place the unit in service.
    b. The unit will be evaluated by the Station Captain or assigned designee by the Fire Chief/Fire Marshal. They will determine if the service can be completed in-house or if the unit or its components need to be sent to an authorized service center for repair.

***END OF SECTION***