TOPIC: Inspecting Self Contained Breathing Apparatus

TIME FRAME: 1 Hour

LEVEL OF INSTRUCTION:

BEHAVIORAL OBJECTIVE:

Condition: A written quiz

Behavior: The student will describe inspection procedures for Self-Contained Breathing Apparatus

Standard: With a minimum of 70% accuracy

MATERIALS NEEDED:

- Self-Contained Breathing Apparatus inspection checklist
- Appropriate visual aids
- Audio visual equipment

REFERENCES:

- IFSTA, Self Contained Breathing Apparatus, 1st Edition, Chapter 8

PREPARATION: Firefighters should consider SCBAs to be the most important part of their protective equipment. Like any other piece of equipment the SCBA requires proper inspection and maintenance before and after each use.

PRESENTATION	APPLICATION
I. TYPES OF INSPECTIONS	
A. When Coming On shift	
B. After Each Use	
C. Daily	
II. WHEN COMING ON SHIFT AND AFTER EACH USE	
	Information sheet #1
A. Remove facepiece	
1. Visually inspect	
a. Face piece lens	
(1) Wear	
(2) Scratches	
(3) Cleanliness	
b. Head harness	
(1) Wear	
(2) Damage	
(3) Deterioration	
(4) Cleanliness	
c. Neck strap	
(1) Wear	
(2) Damage	
(3) Deterioration	
(4) Cleanliness	

PRESENTATION	APPLICATION

d. Inhalation tube

(1) Wear

(2) Damage

(3) Deterioration

(4) Cleanliness

(5) Obstructions

2. Check for proper operation

a. Don facepiece

(1) Ensure proper face-to-face piece seal

(2) Exhale forcefully

(a) Check exhalation valve

3. Return face piece to clean storage bag

B. Remove SCBA

1. Visually check regulator for

a. Damage

2. Fully open the cylinder valve

a. Listen for the audible alarm to arm as system pressurizes.

(1) Failure to arm indicates:

(a) High pressure hose not bled off when last used

(b) Compressed air cylinder has less than 850 psi

PRESENTATION	APPLICATION
(c) Audi-Larm out of adjustment or inoperative	
(d) Restriction or blockage in cylinder valve or high pressure hose coupling	
b. Listen for leaks near connections	
c. Some brands may have mainline valve left open & locked (i.e. Survivair)	
3. With regulator outlet covered open mainline valve fully	
a. Cover the outlet with rubber cap or your hand to keep air from escaping.	
b. Check regulator pressure	
(1) Regulator pressure to be the same as cylinder reading	
(2) If different by 100 psi take out of service.	
(3) If pressure is less than 1800 psi change or fill cylinder	
4. Close mainline valve	
a. Bleed air out of regulator slowly.	
b. Some brands may have mainline valve left open & locked (i.e. Survivair).	
5. Close cylinder valve	
6. Open bypass valve slowly	
a. Checking operation of bypass	
b. Releasing air	

PRESENTATION	APPLICATION
(1) From the high pressure hose	
c. Listen for the audible alarm as the air is released	
(1) Audi-Larm (MSA) should start ringing between 570 and 540 P.S.I.	
(2) Audi-Larm (MSA) should continue ringing down to 200 P.S.I.	
7. Close bypass valve	
	Open & close don/use valve (Survivair) to completely bleed diaphragm
C. Inspect Air Cylinder	
1. Visually check for damage to cylinder	
2. Dents, scratches	
3. Hydrostatic test date or manufacture date if it has not been hydrostatically tested	
a. " + " mark after last test date means you can fill to service pressure plus 10%.	
D. Inspect Regulator and High Pressure Hose For:	
1. Damage to hose threads and O rings	
2. Cracks, leaks, damage, or deterioration	
E. Inspect Harness Assembly and Straps For:	
1. Damage to metal frame	
2. Belts/straps	
3. Buckle and snaps	

PRESENTATION	APPLICATION
F. Return SCBA to Apparatus	
1. Making sure all straps are fully extended	
2. Ready for emergency use	
G. Fill Out Inspection Form	
	Information sheet #2
1. After each on shift inspection	
III. DAILY INSPECTIONS	
A. During Daily Apparatus Check Out	
B. Inspect SCBA For	
1. Evidence of damage	
2. Evidence of tampering	
3. Cleanliness	
4. Proper storage	
C. Check Compressed Air Cylinder Gauge For Pressure	
1. If pressure is less than 1800 P.S.I., change or fill cylinder	

SUMMARY:

It is essential for fire fighters to know how to inspect a SCBA. Special consideration should be given to the hydrostatic test date and the proper pressure rating for cylinders. Inspections are conducted at the beginning of each shift, after each shift and on a daily basis to ensure readiness for emergency operations.

EVALUATION:

A written quiz.

ASSIGNMENT:

To be determined by instructor(s).