

PM000029

Revision 1

SELF CONTAINED BREATHING APPARATUS (SCBA) INSPECTION

Maintenance Procedure
Reference Only
[]

APPROVED FOR USE

1.0 INTRODUCTION

Specifically, this work will accomplish the following:

- This procedure provides work steps to safely perform Weekly and Monthly SCBA Inspections. Qualified Emergency Management Personnel will perform documented inspections and tests. Performance of this procedure generates a RCRA record.

This procedure generates the following Quality records in accordance with WP 13-1, Quality Assurance Program Description (QAPD).

- Attachment 1

2.0 REFERENCES

BASELINE (DEVELOPMENTAL)

- MSA M7 and MSA 4500 II Operation and Maintenance Manuals
- NFPA 1404, Fire Department Self Contained Breathing Apparatus Program
- ANSI Z88.5-1981, Respiratory Protection for the Fire Service
- OSHA - 29 CFR 1910.134, Respiratory Protection
- OSHA - 29 CFR 1910.156, Fire Brigades/Industrial Fire Departments
- WP 12-FP.01, Fire Protection Program
- WP 04-AD3016, Equipment Inactivation
- WP 13-1, Quality Assurance Program Description
- 12-IS1005, Respirator/Face Piece Cleaning and Inspection

REFERENCED (REQUIRED ON-HAND)

None

3.0 MATERIAL LIST

None

4.0 EQUIPMENT LIST

None

5.0 PRECAUTIONS

All work steps should be performed. If a major change in the PM is needed, for a particular job, then EM Manager **Or** designee will review and approve. Emergency Management will attach approval to field copy showing temporary change.

6.0 LIMITATIONS

6.1. HOLD AND WITNESS POINTS

None

6.2. TAGOUT/LOCKOUT

None

6.3. OTHER LIMITATIONS

- The order of completion of this work may be modified or sections may be performed in parallel, provided that proper Tagout/Lockout is observed and that no Hold Points or precautionary actions associated with Warning statements are bypassed.
- Any employee who has a concern for employee safety, the safety of the environment, or the quality of the activity has the responsibility and authority to suspend the performance of that activity.
- Work shall be stopped when instructions cannot be performed; field conditions change, or additional job hazards are identified.
- Brackets at the beginning of steps are optional place-keeping aids, and may be checked off as work progresses.
- All personnel affixing initials to this package shall provide the information listed in the PERSONNEL DATA TABLE.
- Troubleshooting or other activities outside the scope of this PM may require the initiation of a work order as directed by the Responsible Engineer or Zone Team Leader.

7.0 PREREQUISITES

7.1. ADMINISTRATIVE

- 7.1.1. EM Manager or designee will provide training, direction, and overview to personnel performing inspections and tests. EM Manager ensures adequacy of inspection and test procedures for compliance to NFPA, OSHA, DOE, and WID requirements.
- 7.1.2. EM Manager or designee will provide qualified and trained personnel to conduct inspections, ensures that provisions of this procedure are followed, make procedure changes as needed, and reviews inspection reports.
- 7.1.3. Work Control will maintain PM procedures and provide timely test sheets for documentation of scheduled inspections and maintain documentation for review by authorized personnel.
- 7.1.4. Record work order number on Attachments.

7.2. TASK PREPARATION

- 7.2.1. Obtain materials and equipment shown in Materials and Equipment section.

8.0 PERFORMANCE

NOTE

This note applies to section [] 8.1

For inspection items that do not apply, check N/A column. For example; when inspecting spare cylinders.

[] 8.1. SELF CONTAINED BREATHING APPARATUS (SCBA) INSPECTION

- [] 8.1.1. Perform weekly inspection per attachment 1.
- [] 8.1.2. Record inspection date and time. Record harness unit number.
- [] 8.1.3. Record SCBA brand.
- [] 8.1.4. Record cylinder number.
- [] 8.1.5. Record location of SCBA unit and/or cylinder.
- [] 8.1.6. Record cylinder hydrostatic test date. **If** beyond 3 years for DOT-E7277, and beyond 5 years for DOT-E10915, **Then** remove from service. Replace with new cylinder **And** record cylinder number.
- [] 8.1.7. **If** cylinder requires hydro testing, **Then** tag cylinder with equipment inactivation tag **And** remove for testing.
- [] 8.1.8. Record cylinder pressure (should read from 4050 psi to 4500 psi).
- [] 8.1.9. **If** less than 4050 psi, **Then** remove from service **AND** refill. Replace refilled cylinder with original harness.
- [] 8.1.10. **If** cylinder can not be replaced with original harness, **Then** replace with new cylinder **And** record cylinder number.
- [] 8.1.11. Inspect cylinder for: dents, chipped fiberglass hoopwraps, discoloration, or other indications that may cause cylinder failure. Record cylinder condition code; corrective action taken (If any) in comments section.
- [] 8.1.12. **If** cylinder needs repairs, **Then** tag cylinder with equipment inactivation tag **And** remove for repair **Or** for disposal.
- [] 8.1.13. Record harness condition code; corrective action taken (If any) in comments section.

- 8.1.14. Verify straps are fully extended and working properly.
- 8.1.15. **If** harness needs repairs, **Then** tag harness with equipment inactivation tag **And** remove for repair **Or** for disposal.

8.2. MONTHLY SCBA INSPECTION:

- 8.2.1. Perform all of 8.1 above and the following:
- 8.2.2. Inspect harness frame, straps, and tightening devices. Items must be in proper working condition. Such as; no strap discoloration, no frame cracks, no loose or damaged parts.
- 8.2.3. Inspect high and low pressure hoses and connections for damage. Open cylinder valve to pressurize regulator with mainline valve open.

NOTE

This note applies to section 8.2.4

If SCBA is a MSA, then only check for leaks with mainline cylinder valve open.

- 8.2.4. Check for seals around gaskets and listen for any air leaks on unit.
- 8.2.5. Inspect regulator for dents, corrosion or other damage.

NOTE

This note applies to section [] 8.2.6

MSA 4500 II regulator gauge is belt mounted. MSA M7 regulator gauge is located on right shoulder strap. Cylinder gauge is located near valve on all cylinders.

- [] 8.2.6. Verify, under pressure, regulator and cylinder gauges are within \pm 100 psi.
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NOTE

This note applies to section [] 8.2.7

Red MSA 4500 II bypass valve is located on belt mounted regulator. Red MSA M7 bypass valve is on face piece.

- [] 8.2.7. Verify bypass (purge) valve is closed.
 - [] 8.2.8. Close cylinder valve.
 - [] 8.2.9. Cover cap **And** open **And** close bypass valve quickly.
 - [] 8.2.10. Replace cap **And** check gauge for additional pressure drop.
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NOTE

This note applies to section [] 8.2.11

MSA 4500 II mainline valve is located on belt mounted regulator (regulator valve handle is brass). MSA M7 mainline valve is on cylinder.

MSA 4500 II and MS 7 has a bell located at cylinder valve.

- [] 8.2.11. Check low air alarm: **If** 4500 II, **Then** open mainline valve while cover cap is off regulator, **And** verify alarm at 1,000 psi.
- [] 8.2.12. **If** M7, **Then** open bypass to relieve pressure off regulator and verify alarm at 1,000 psi.
- [] 8.2.13. Verify mainline cylinder valve is closed.
- [] 8.2.14. Verify regulator pressure is relieved.

- 8.2.15. Check PASS alarm by turning it on and not moving SCBA for 30 seconds, \pm 5 seconds. **If** PASS does not alarm, tag unit out of service, **Then** replace battery.
- 8.2.16. Turn PASS off after alarming, If M7 push yellow button on control module twice.

NOTE

This note applies to section 8.2.17

Per 12-IS1005, Industrial Hygiene cleans, inspects, and bags face pieces.

- 8.2.17. If a clean face piece is present, then record OK.
 - 8.2.18. If a face piece needs to be replaced, then contact Industrial Hygiene for replacement.
 - 8.2.19. If a face piece is not present, then mark N/A.
 - 8.2.20. Record any comments that accurately describes situations that need to be reported. **If** SCBA needs repairs, **Then** tag SCBA with equipment inactivation tag for repair **Or** for disposal.
 - 8.2.21. Print and sign your name.
 - 8.2.22. Record date and time.
 - 8.2.23. FSM or designee, reviews completed form for completeness and prints name, signs and dates form. FSM or designee, may make any additional comments in Comment section.
 - 8.2.24. Maintenance Operations **Or** designee retains forms for filing in accordance with RCRA and Maintenance Operations RIDS.
- 8.3. REINSPECT
- 8.3.1. Reinspect if SCBA had any corrective actions.
- 8.4. RESTORATION TO OPERATIONAL STATUS
- 8.4.1. None

SCBA CHECKLIST

* Items require weekly inspection. All others require monthly inspection.

SCBA CHECKLIST		
SCBA #: _____ Brand: <u>MSA</u> _____ Cylinder #: _____ Location: _____		
<input type="checkbox"/> OK <input checked="" type="checkbox"/> Adjustment Made <input type="checkbox"/> Repairs Required (check or complete appropriate information)		
INSPECTION ITEMS	CONDITION	N/A
*Cylinder Hydro Date		
*Air Pressure > 4050 psi (± 50 psi)		
*Cylinder Condition		
*Harness Condition		
*Belts and Straps Extended		
Harness Components		
Hoses and Hose Connections		
Gauges (Regulator and Cylinder)		
Regulator		
Regulator/Cylinder Gauge Comparison (± 100 psi)		
Cylinder Valve Closed		
By-Pass Valve Closed		
Alarm Check		
Main-Line Valve Closed		
Regulator Pressure Off		
Motion and/or Heat Detector Alarm Test (PASS)		
Facepiece (Facepiece inspected, and cleaned by Industrial Hygiene)		

Inspected By: _____ /
 Print Name Signature Time/Date

Inspected By: _____ /
 Print Name Signature Time/Date

Reviewed By: _____ /
 Print Name Signature Time/Date

Comments:

RCRA Form