



WASHINGTON COUNTY VOLUNTEER FIRE & RESCUE ASSOCIATION STANDARDS MANUAL

Title: Respiratory Protection Standard

Effective Date:

Approval:

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Purpose:

This standard operation guideline has been established to ensure compliance with the Respiratory Protection Standard published in the Federal Register on January 8, 1998, and designed as 29 CFR 1910 and 1926.

In 1971, federal OSHA adopted a respiratory protection standard requiring employers to establish and maintain a respiratory protection program for their respirator-wearing employees. The revised standard strengthens some requirements and eliminates duplicative requirements in the OSHA health standards.

The standard specially addresses the use of respirator in immediately dangerous to life or health (IDLH) atmospheres, including interior structural fire fighting. OSHA defines structures that are involved in fire beyond the incipient as IDLH atmospheres. In these atmosphere, OSHA requires that personnel use self-contained breathing apparatus (SCBA), that a minimum of two fire fighters works as a team inside the structure, and that a minimum of two fire fighters been stand-by outside to provide assistance or perform rescue.

This standard, with its two in/two provision, may be one of the most important safety advances for fire fighting ion this decade. Too many fire fighters have died because of insufficient accountability and poor communications. The standard addresses both and leaves no doubt that two in/two out requirements must be followed for fire fighters safety and compliance with the law.

Any department or unit that uses respirators of any type in their mission or tasks must follow this standard. For those organizations that believe that they are not impacted by this standard, they need to realize that the January 8, 1999 OSHA standard is the criteria by which everyone will be measured against if there is ever any question about providing due care for their response personnel regarding inhalation hazards.

This standard is intended to meet the requirement so the National Fire Protection Association (NFPA) 1500, Standard on Fire Department Occupational Safety and



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Health Program.¹ This policy does not imply a comprehensive list of items that could occur.

Definitions:

Department	Any fire or rescue company operations in Washington county, MD
HCP	State of Maryland Licensed Health Care Professional
IDLH	Immediately dangerous to life and health atmosphere
Interior Structural Fire Fighting	Physical activity of fire suppression, rescue or inside buildings or enclosed structures which are involved in a fire situation beyond the incipient stage.
OSHA	Occupational Safety & Health Administration of the Federal Government and/or the Maryland Occupational Safety & health Office.
Program administrator	Department member assigned responsibility to oversee the respiratory standard and the applicable requirements set forth therein appointed/ assigned by the respective department chief.
SCBA	Self-contained Breathing Apparatus
User	Any individual expected to or authorized to utilize a respirator.



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OMMISSIONS:

Any omission or error in this County standard does not relieve each department or respective Chief of the Department from the responsibility of compliance with the standards referenced herein. All Program Administrators and Department Chief's are required to become familiar with the standards reference herein.

ACTION:

Each department shall comply with the standard for respiratory protection and the requirements outline herein, which include, by reference the Federal Standard 29CFRR1910 and 1926 released on January 8, 1998.

Each department shall appoint/assign an individual responsible for the administration. The Program Administrator may have assistants that help with the overall control and make improvements necessary based on the evaluation and periodic review.

Procedure use for selecting respirators to meet department mission or task: SCBA used for structural firefighting and rescue operations shall be approved by NIOSH/MSHA with a minimum service duration of 30 minutes (excluding specialized escape packs) and shall operate in the positive pressure mode only.

It is important to remember, in HAZWOPER (29 CFR 1910.120) that downgrading the level of respiratory protection to below positive pressure SCBA may be done when the IC determined through the use of air monitoring that the decrease level of respiratory protection will not result in hazardous inhalation exposures to personnel.

SCBA shall be equipped with a buddy system connection. All existing SCBA must be retrofitted to provide a buddy breathing connector.



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Medical Evaluations:

All users must either complete a medical screening questionnaire reviewed by a state licensed Health Care Professional (HCP) or completed a physical examination. If a positive answer (yes) is given to any of the question(s) on the questionnaire or the Health Care Professional determines that a medical examination is necessary, the user must compete and provide the department with appropriate documentation of a medical examination by a state licensed HCP in accordance with ANSIZ88.2-1992

Medical evaluation shall be available to the user at no cost.

Medical examinations shall be completes before a user is fit tested or permitted to wear a respirator in a training exercise or any other task.

The department shall provide the HCP with the following:

1. A copy of the department's respiratory standard
2. A statement indicating the following:
 - a. type of respirator(s) anticipated to be used by user
 - b. the weight of the respirator being used
 - c. outline of the work effort when using the respirator
 - d. list of other protective clothing worn concurrently (such as turn out gear, chemical suits. Etc.)
 - e. temperature range and humidity extremes that are anticipated during the use of the respirator
3. Copy of the OSHA Respiratory Protection Standard

The HCP is to provide a copy of the complete recommendations to the person who has been evaluated/ reviewed, and may have discussion of the results with the person being evaluated/reviewed.



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A medical re-evaluation may be required if:

- 1) The medical care professional recommends it.
- 2) The user reports signs or symptoms related to the ability to use the respirator.
- 3) The Program Administrator or Chief of the department determines a need to have the user reevaluated.
- 4) Observations made during the fit testing or program evaluation which indicates a person needs to be re-evaluated.
- 5) Changes in the department's SOP's, SOG's or equipment that would substantially increase the physiological burden placed on the user.
- 6) The user responds in a positive manner to any of the medical questionnaire.

All medical screening and evaluations shall be conducted confidentially, and the medical records shall be maintained in accordance with the OSHA requirements 29CFR1910, 1020 " Access to Employee Exposure and Medical Records ".

Procedure for proper use:

It is the policy of the Washington County Volunteer Fire & Rescue Association that all personnel expected or likely to respond to and function in areas of atmospheric contamination (IDLH), shall be equipped with, and trained in the proper use and maintenance of SCBA or other appropriate respiratory equipment.

Facial hair that in between the two sealing surfaces is not acceptable, if such facial hair interferes with the sealing surface or interferes with the valve function. Wearing eyeglasses that protrude through seal are, which could compromise the level of protection is not acceptable. If the user insists on using such devices or growing a beard that interferes with the face piece seal...., The department shall discontinue that users authorization of use of respiratory equipment.

Each department shall train the use to check for an acceptable facepiece seal each time they wear the facepiece. The facepiece seal check shall be done in accordance with the respirator manufacture's recommendations.



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All personnel shall utilize the SCBA unit when encountering the following emergencies:

- 1) Incidents within a structure or confined space above or below ground level.
- 2) Operations within a contaminated atmosphere.
- 3) Situations and area where it is likely that the atmosphere may be contaminated.

While working in a hazardous atmosphere two firefighters shall work as a team. The two persons remain in continuous communication with each other at all times. Acceptable forms of communication include, and are strictly limited to. Visual, voice, or signal (tether) line communication methods (electronic communication devices such as radios are not acceptable).

Before interior structural firefighting is initiated a minimum of four (4) personnel, consisting of two persons in the hazard area and two outside the hazardous area, for assistance and rescue. At least one (1) of the outside crew members must remain in continuous with the crew operating inside the hazardous atmosphere. The other outside crewmember is permitted to perform other duties, but those other duties are not allowed to interfere with the responder's ability to provide assistance or rescue to the firefighters working inside the hazardous atmosphere. The outside personnel, shall be properly equipped and trained and must at all times account for, and available and capable to assist or rescue members of the interior team.

Each department shall integrate the County's personnel accountability system with use of the respiratory equipment.

If an outside crew member must perform a rescue operation for the interior crew he/she shall notify the incident commander, other personnel operating at the scene radio Fire & Rescue Communications if his/her actions.

OSHA regulations recognize deviations to regulations in an emergency operation where immediate action is necessary to save a life. Initial attack



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operations must be organized to ensure that adequate personnel; are at the emergency scene prior to any interior attack at the structure fire. If initial attack personnel find a known life hazard situation where immediate action could prevent the loss of life deviation from the two-in/two-out standard may be permitted, as an exception to the department's organizational plan. Such practices are nit to be considered standard practices and OSHA citations and corrective action notices may be issued a department, if the action occurs.

All users shall resist the tendency to permanently remove the SCBA during routine fire or rescue situations. We must be aware of the respiratory hazard, which exist in ordinary as well as extraordinary fire and rescue situations. IT is generally true that carbon monoxide levels increase during the overhaul process, due to the incomplete combustion and smothering process occurring. The users shall remove his/her SCBA until the atmosphere has been determined to be safe to operate within utilizing calibrated in monitoring equipment.

Fit testing:

Fit testing is required on an annual basis. Prior to fit testing the user shall be instructed on the proper methods and procedures for donning and doffing the respirator facepiece. The fit testing requirements shall be completed in accordance with the respirator manufactures recommendations and shell meet or exceed the requirements contained in appendix A of the OSHA standard 29CFR1910.

Appropriate documentation of a completed fit test shall be on file in the users training file. Retesting the user's fit after initial test may be required if any of the following have occurred since the last fit test or re-test.

1. The user reports any change in their physical condition.
2. The HCP recommends a re-test.
3. The designated face piece is causing a problem for the user, such as skin irritation, etc..
4. The Program Administrator or Chief of the Department recommends a re-test.
5. The user notifies and department official that the respirator fit is not acceptable.



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An annual fit test shall be performed on the user for as long as they continue to wear a respirator.

Recruit training, at academies and similar locations, where trainees may be assigned as SCBA for general familiarization training may be performed before the person is fit tested. This provision is based on the assumption that each person has had a medical evaluation meeting the requirements outlined herein. Training prior to fit testing may not include entry into any hazardous atmosphere, but may not include following hoselines in dark areas, warding cloth covers or opaque tape to cover the facepiece lens in lighted areas or in non-toxic smoke evolutions. Prior to any interior structural firefighting training the recruit must have completed the fit test protocol.

Procedures for cleaning, disinfecting, storing, inspecting, repairs, maintenance, and retirement of respirators:

Cleaning:

Facepieces shall be cleaned and disinfected in accordance with the manufactures recommendation after each use. SCBA components shall be cleaned and free of dirt, chemicals, and other foreign matter after each use in accordance with the manufactures recommendations.

The department shall provide the user with the appropriate cleaning and disinfectant agents as necessary to comply with the manufactures recommended procedures for any type of respirator being used.

Inspecting, Maintaining Respirators:

All respirators must be inspected for wear and deterioration of components before and after each use and on weekly intervals between use. Special attention should be given to rubber parts which can deteriorate. The facepiece, face seal surface, headband, valves and regulation devices must be in good condition.



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All compressed air cylinders, bottled, etc. shall be hydrostatically tested in accordance with the manufactures recommendations, all SCBA regulators shall be annually flow tested in accordance with NFPA 1404, Chapter 6.

Any defective or worn part must be reported to a company officer and the Program Administrator for immediate evaluation and repair or replacement if necessary.

Retirement of Respirators:

The program Administrator and/or the Chief of the Department shall retire and respirator that is defective and not suitable for repair. All components of a retired respirator shall be clearly marked "Not acceptable for use" using a permanent marker of paint.

Procedures to ensure air quality:

The Chief of the Washington County Emergency Air Unit shall be responsible to ensure that the Washington County Air Unit's equipment meets or exceeds the air quality standards outlined in ANSI/CGA G-7-1-1989 Type1 – Grade D breathing air:

Training Requirements:

All users must be instructed in the proper use of the equipment being used, their physical limitations and limitations of the equipment. Training shall be completes on an annual basis and appropriate documentation verifying of the training shall be on file in the users training records.

User training shall include, but is not necessarily limited to the following:

1. Why using a respirator is important
2. How a poorly fitting respirator compromises protection.
3. How a poorly maintained respirator compromises protection.
4. How using a respirator in a manner or environment that is not designed and approved for compromises protection.



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5. What the limitations and capabilities are of the respirator that are being or will be used.
 6. How to operate the respirator in emergency situations including where a respirator malfunctions occurs.
 7. The proper way to inspect a respirator.
 8. The methods of donning and doffing the respirator.
 9. The methods to check the facepiece seal of the respirator.
 10. The departments procedures for cleaning, disinfecting, inspecting, maintenance, and storage of respirators.
 11. The medical signs and symptoms that a user may experience that could limit or prevent the proper use being make of the respirator.
 12. The general requirements of the revised OSHA Respiratory Protection Standard.

Program review and evaluation:

The County Association and each department shall periodically review and update this standard as necessary to remain in compliance with the appropriate standards and equipment technology. Revisions of this standard shall be submitted for approval to the Washington County Volunteer Fire & Rescue Association.

Record Keeping:

Each department shall develop and implement standard operating guidelines consistent with this standard and maintain the appropriate level of documentation to demonstrate compliance.

Each department shall be responsible to maintain accurate records for their respective membership. Users that volunteer or serve in a career capacity in different.