

2017-103 Respiratory Protection Program



Westbrook Fire & Rescue Department
Standard Operating Procedure

Section: Administrative	TOPIC: Respiratory Protection Program
NUMBER: 2017-103	ISSUE DATE: December 1, 2004
	REVISED DATE: November 14, 2017
POLICY REFERENCES: Maine BLS Compliance Directive National Fire Protection Agency, 1981 SCOTT Safety product information OSHA 1910.134	APPROVED BY: <hr/> <p>Andrew R. Turcotte Chief of Department</p>

Purpose:

This policy is designed to ensure that all firefighters with the Westbrook Fire & Rescue Department, while engaged in emergency operations will be provided the appropriate personal protective equipment to eliminate potential respiratory hazards. Potential for hazards include but are not limited to: by products of combustion (toxic smoke, heat, gasses and an oxygen deficient atmosphere. These conditions present an Immediately Dangerous to Life & Health (IDLH) working environment. This policy serves to establish guidelines for when respiratory protection shall be used and shall meet all the applicable standards.

The use of Self Contained Breathing Apparatus (SCBA) shall be the first line of defense against these respiratory hazards. Engineering Controls such as ventilation may be used when the Officer in Charge (O.I.C.) is able to determine, by metering, that no hazard exists. Metering must be specific and the O.I.C. must be positively certain that no hazard exists. Ventilation during structural firefighting shall not be considered as a substitute for the use of SCBA.

Scope and Application

This program applies to all employees who are required to wear SCBA during firefighting or other emergency activities. All employees who perform duties requiring the use of SCBA must be enrolled in the Westbrook Fire & Rescue Department Respiratory Protection Program. The Westbrook Fire & Rescue Department shall be responsible for any required expenses resulting from the employee's participation in the Respiratory Protection Program.

Responsibilities

Fire Chief

The Fire Chief shall have the overall responsibility of the administration of the Respiratory Protection Program including;

- Development of the Respiratory Protection Program
- Development of Policies, Rules and Regulations

- Budgeting for program implementation.
- Appointment of Respiratory Protection Program Administrator
- Determining those employees required to participate in the program.

Program Administrator

The Program Administrator is responsible for administering the respiratory protection program. Duties of the program administrator include;

- Identifying work areas, processes or tasks that require workers to wear respirators, and evaluating hazards.
- Selection of respiratory protection options.
- Monitoring respirator use to ensure that respirators are used in accordance with their certifications.
- Arranging for and /or conducting training.
- Ensuring proper storage and maintenance of respiratory protection equipment.
- Conducting qualitative fit testing per Maine Department of Labor Standards
- Administering the medical surveillance program.
- Maintaining records required by the program.
- Updating the written program, annually and as necessary.
- Will ensure an adequate supply of cleaning and disinfecting material at the fire station, as well as field cleaning material.
- Shall ensure that the compressed air maintains Grade D Quality and that the air compressor is serviced and tested at least annually.

The administrator shall maintain all records by this section of the program. The records shall be made available to the firefighters for review.

TYPE of RECORD	KEEP RECORDS FOR
Fit Test	1 Year (maintain current record only)
Medical Evaluations	Length of employment, plus thirty years (1910.1020)
Training	Length of employment

Providing to the physician the necessary information about the standard including, a copy of the Westbrook Fire & Rescue Department program, a copy of the Respiratory Protection Standard, a list of hazards encountered in the work environments, and for each employee requiring evaluation; his or her work area or job title, proposed SCBA type and weight, length of time required to wear SCBA, expected physical work effort, potential temperature extremes, and information regarding type and weight of protective clothing.

The Respiratory Protection Program Administrator for the Westbrook Fire Rescue Department is Deputy Chief Stephen A Sloan Jr.

Supervisors

Supervisors are responsible for ensuring that the respiratory protection program is implemented. In addition to being knowledgeable about the program requirements for their own protection, supervisors must also ensure that the program is understood and followed by the employees under their charge. Duties of the supervisor include:

- Ensuring that employees under their supervision (including new hires) have received appropriate training, fit testing, and medical evaluations according to the schedule. · Ensuring the availability of SCBA.
- Being aware of tasks requiring the use of SCBA. · Enforcing the proper use of SCBA when necessary.
- Ensuring that SCBA are properly cleaned, maintained, and stored according to the respiratory protection program.
- Ensuring that SCBA fit well and do not cause discomfort.
- Continually monitoring work areas and operations to identify respiratory hazards. · Report to the Program Administrator or the Fire Chief should an employee have difficulty wearing or when using an SCBA.
- Coordinate with the Program Administration how to address respiratory hazards or other concerns regarding the program.

Westbrook Fire Rescue Department Supervisors include; Deputy Chiefs, Captains, Acting Captains, Captains and Lieutenants of the Call Department.

Employees - Full & Part Time

Each employee has the responsibility to wear his / her SCBA when and where required and in the manner in which they were trained. Each employee must also: Care for, maintain, and store their SCBA as instructed.

- Inform their supervisor if the SCBA no longer fits well, and request a new one that fits properly.
- Inform their supervisor should they have difficulty when wearing or using an SCBA.
- Inform their supervisor or the Program Administrator of any respiratory hazards that they feel is not adequately addressed in the workplace and any other concerns that they have regarding the program.

Program Elements

Selection Procedures

The Westbrook Fire & Rescue Department currently uses Scott NXg2 Brand Regulators. The SCBA's are NIOSH certified and shall be used in accordance with the terms of that certification. Employees shall annually be fit tested to these brands of SCBA.

Hazard Evaluation

The Program Administrator shall conduct hazard evaluations for each operation, process, work area, or job function to determine when respiratory hazards may occur and to make recommendations for policy changes regarding the use of SCBA. The hazard identification will include:

- (1) Identification and development of a list of hazardous operations where respiratory hazards may be encountered.
- (2) Review of work processes to determine where potential exposures to respiratory hazards may occur. This review shall be conducted by surveying the workplace, reviewing the operations, and talking with employees and supervisors.
- (3) Exposure monitoring to ensure the proper use of SCBA.

The results of the current hazard evaluation are as follows:

Structural Fire Fighting

For years structural firefighting has been known to pose a potential respiratory hazard. This hazard has only increased with the amount of plastics and synthetic material used in construction and home furnishings. Ventilation, even the use of positive pressure ventilation cannot ensure the lack of respiratory hazard. Therefore, all members of the Westbrook Fire & Rescue Department engaged in interior structural firefighting shall use SCBA from the point where the O.I.C. determines the environment to be IDLH until overhaul is complete and the fire is determined to be out by the O.I.C. Firefighters who are performing exterior functions at a structural fire may be required to use SCBA, depending on the operation and potential hazard as determined by the O.I.C., Safety Officer, or the Company Officer.

Vehicle fires are known to produce toxic gases that may be IDLH. Firefighters who are engaged in vehicle firefighting operations who may be exposed to the products of combustion shall use SCBA while performing these operations.

Dumpster or other containers (which are not classified as structure fires) when involved in fire may present respiratory hazards. Firefighters engaged in these operations that may be exposed to the products of combustion shall use SCBA while performing these operations.

Hazardous Materials Incidents: Firefighters who respond to Hazardous Materials Incidents may be exposed to a variety of known and unknown respiratory hazards. SCBA shall be worn by firefighters working in the *hot zone, warm zone and decontamination line* as determined by the O.I.C.

Special Rescue Situations may include below grade, confined space and other areas where the O.I.C. cannot ensure the quality of the atmosphere. In these cases, employees shall use SCBA.

Engineering controls such as ventilation may be used provided constant monitoring can ensure with certainty the quality of the atmosphere in the rescue environment.

Other Respiratory Hazards

Nothing in this policy is intended to restrict the O.I.C. from requiring employees to use SCBA when he /she suspect a potential respiratory hazard. O.I.C.'s are encouraged to adequately size-up each situation and to consider the safety of the employee when making decisions regarding SCBA use.

Updating the Hazard Assessment

The Program Administrator shall have revised and update the hazard assessment annually and as needed (i.e. any time through new technology or new processes, any changes occur that may affect the atmosphere in the working environment that may potentially affect employee exposure).

Medical Evaluation

Employees who are required to wear SCBA must pass a medical evaluation before being permitted to wear SCBA on the job. Employees are not permitted to wear SCBA until a physician has determined that they are medically able to do so. Any employee refusing a medical evaluation will not be allowed to work in an area requiring SCBA use.

Concentra will provide the medical evaluation. Medical evaluation procedures are as follows:

The medical evaluation will be conducted using the questionnaire provided by US Health Works in compliance with that of the State of Maine respiratory protection standard.

To the extent feasible, the Westbrook Fire & Rescue Department will assist employees who are unable to read the questionnaire (by providing help in reading the questionnaire). When this is not possible, the employee will be sent directly to Concentra for medical evaluation.

All affected employees will be given a copy of the medical questionnaire to fill out, along with a stamped and addressed envelope for mailing the questionnaire to the company physician. Employees will be permitted to fill out the questionnaire on city time.

Follow up medical evaluations will be provided to employees as required by this standard, or as required by Concentra.

All employees will be granted the opportunity to speak with the physician about their medical evaluation, if they so request.

After an employee has received clearance and begun to wear SCBA, additional medical evaluations will be provided under the following circumstances.

Annually after age 40.

Every two years between the ages of 35 - 39.

Every five years up to age 34.

- Employee reports signs and/or symptoms related to their ability to use an SCBA, such as shortness of breath, dizziness, chest pains, and/or wheezing.

- The physician or supervisor informs the Program Administrator that the employee needs to be reevaluated, information from this program, including observations made during fit testing and program evaluation, and indicating a need for reevaluation.
- A change occurs in the workplace that may result in an increased physiological burden on the employee.

All examinations, evaluations and questionnaires are to remain confidential between the employee and the physician.

Fit Testing

Fit Testing is required for all employees wearing SCBA.

Fit testing will be conducted in accordance with the following schedule;

- Prior to being allowed to wear any SCBA.
- Annually
- When there are changes in the employee's physical condition that could affect respirator fit (obvious changes in body weight, facial scarring, etc.).

Employees will be Fit Tested with the make, model, and size of the SCBA that they will actually use.

The test shall not be conducted if there is **any hair growth between the skin and the face piece-sealing, such as stubble beard growth, beard, mustache, or sideburns which cross the respirator sealing surface.** Any type of apparel, which interferes with a satisfactory fit, shall be altered or removed.

NO FACIAL HAIR SHALL BE ALLOWED FOR MEMBERS CAPABLE OF WEARING SCBA AS PER OSHA 1910.134 STANDARD ON RESPIRATORY PROTECTION SECTION (G)(1)(D)(A), NFPA 1500 STANDARD ON FIRE DEPARTMENT OCCUPATIONAL SAFETY & HEALTH PROGRAM SECTION 5 RESPIRATORY PROTECTION 5-3.10*.

The Program Administrator will conduct fit tests following the Protocol in Appendix B (B4) of the Respiratory Protection Standard.

Protective Clothing

Firefighters wearing an SCBA shall be fully protected with the use of approved structural firefighting clothing that meets the requirements of 1910.156(e).

Respirator Use

SCBA use is required for all employees engaged in the following firefighting activities; structural fires, hazardous materials incidents, vehicle fires, dumpster fires, and special rescue situations, or any incident which may cause exposure to a respiratory hazard.

General Use Procedures

Employees will use their respirators under conditions specified by this program, and in accordance with the training they receive on the use of each particular model. In addition, the

SCBA shall not be used in a manner for which it is not certified by NIOSH or by its manufacturer.

All employees shall conduct 'User Seal Checks' each time that they wear their respirator. Employees shall use either positive or negative pressure check (depending on which test works best for them) specified in Appendix B-1 of the Respiratory Protection Standard.

Employees who detect operational problems with or experience failure of the SCBA shall immediately notify their supervisor, sound their PASS Alarm, and leave the hazardous environment with their partner.

Employees are not permitted to wear any jewelry, ear protection, eye glasses, or protective hoods in a manner that may interfere with the face to face piece seal. Facial hair or any other hair style may not interfere with the face to face piece seal.

Interior Structural Firefighting

Employees engaged in Interior Structural Firefighting shall;

- Use SCBA for all fires beyond the Incipient Stage or as directed by the O.I.C. · Continue to use SCBA until the completion of 'Overhaul' unless the atmosphere is checked to be contaminant free.
- Work in a minimum of pairs (buddy system) and maintain voice or visual contact with members of each team.
- Be supported by, two standby members who are available for immediate rescue of interior firefighters. Each standby member shall be dressed in full-protective clothing and have SCBA immediately available to them. The function of one of the stand-by members shall be the accountability of the firefighters inside the building. The other stand-by member may assume other duties including pump operator provided this individual is able to perform rescue assistance without jeopardizing the safety or health of any firefighter working at the incident.

Nothing herein shall prohibit the O.I.C. from establishing a Rapid Intervention Team (RIT) to replace the two firefighters outside.

In the event that the O.I.C. determines the need to perform Emergency Rescue Activities upon arrival requiring the use of the entire team the O.I.C. must:

- Notify dispatch of entry without the two stand-by members.
- Enter with or without a charged hand line, perform the emergency rescue, and immediately leave the structure.
- After the incident, document in writing, to the Fire Chief, detailed explanation regarding the deviation of policy.

Use other than Interior Structural Firefighting

For incidents requiring SCBA use other than interior structural firefighting, employees shall use SCBA whenever they may be exposed to environments which may become IDLH or a respiratory hazard, or as directed by the O.I.C.

When the O.I.C. cannot ensure the employees ability to escape from the hazardous environment, one employee shall be stationed at the point of entry to maintain accountability and be readily available to perform immediate rescue.

Air Quality SCBA cylinders shall be filled with Grade D compressed air only. The Program Administrator shall ensure that the compressed air maintains Grade D Quality and that the air compressor is serviced and tested at least annually.

Cleaning, Maintenance, and Storage

SCBA are to be cleaned and disinfected after each use. The cleaning policy to be as follows, disassemble SCBA removing cylinder, mask, and PASS. Wash the face piece and associated parts in a mild detergent with warm water. Disinfect the face piece **with 70% isopropyl alcohol, allow to stay wet for 10 minutes.** Rinse completely in clean warm water. Air dry in a clean area Reassemble the SCBA, test the function, replace any defective parts, test the function. Place back on the apparatus, masks are to be stored in a bag, or within an enclosed cab.

The Program Administrator will ensure an adequate supply of cleaning and disinfecting material at the fire Station, as well as field cleaning material. If supplies are low, employees should notify their supervisor who will in turn notify the Program Administrator.

Maintenance

SCBA are to be properly maintained at all times in order to ensure that they function properly and adequately protect the employee. Maintenance involves a thorough visual inspection for cleanliness and defects. Worn or deteriorated parts will be replaced prior to use. No components will be replaced or repairs made beyond those recommended by the manufacturer, except by those trained by the manufacturer to do such repairs. Repairs beyond the scope of our trained repair personnel will be conducted by the manufacturer or their designee.

The following items are to be checked, after each use and weekly. The findings of these checks are to be properly recorded in the SCBA usage/maintenance log in the Fire Manager Program;

- Face piece;
 - Cracks, tears or holes
 - Face mask distortion
 - Cracked, loose, damaged lens
- Head straps;
 - Breaks or tears
 - Broken buckles
- Valves;
 - Residue or dirt

Damage to valve or valve material

- Gauges, Regulators & Air Lines;
 - Damage to or inaccuracy
 - Leaks
- PASS Alarm,
 - Operation
 - Battery condition
- Body Harness;
 - Tears, rips, fraying or otherwise damaged straps
 - Broken buckles
- Cylinder;
 - Air supply full
 - Hydrostatic test date
 - General cylinder condition

SCBA that are defective or that have defective parts shall be taken out of service immediately. If during and inspection or during use, an employee discovers an SCBA with a defect he / she is to bring the defect to the attention of his / her supervisor. Supervisors will give all defective SCBA to the Program Administrator. The Program Administrator will decide whether to:

1. Temporarily take the SCBA out of service until it can be repaired.
2. Perform a simple repair on the spot.
3. Dispose of the SCBA or part due to an irreparable condition.

When a respirator is taken out of service, it will be appropriately tagged indicating the problems, and stored in the SCBA maintenance room until it can be repaired or sent out for service.

Storage

Storage of SCBA shall be in their designated place on the apparatus. Masks shall be stored in plastic or nylon bags, or enclosed apparatus cabs to prevent exposure to road dirt and/or contamination.

Training

Annually, each employee shall attend and successfully complete, SCBA training that is based on current NFPA Standards. Training will be both knowledge and hands-on based. Training will include:

- The need for respirator use, and how improper fit, usage, or maintenance can compromise the protective effectiveness of the SCBA.
- Limitations and capabilities of the SCBA.
- How to effectively use SCBA.

- How to inspect, Don, Doff; use, and perform proper seal checks. Procedures for maintenance, field cleaning, and storage.
- How to recognize medical symptoms that may compromise the safety of the wearer.

Program Evaluation

The Program Administrator shall annually and as needed evaluate the respiratory protection program to ensure:

Current written programs are being effective and properly implemented. Employees are properly using SCBA. And, the program continues to be effective.

A copy of the manufacturer instructions for the SCBA is included with this document and duplicate copy(s) will be placed in the SCBA repair room.

Effective date of this policy shall be October 2, 2017. This policy will be evaluated yearly, no longer than 12 months from the effective date