

# TOWN OF WATERTOWN FIRE DEPARTMENT STANDARD OPERATING GUIDELINES

**SECTION:** Equipment Operations  
**SUBJECT:** Respiratory Protection Program  
**REVISED:** 7/2013

## **PURPOSE:**

this respiratory protection program is designed to provide a standard operating guidelines for the town of Watertown fire Department. This policy is designed to ensure that all firefighters engaged in the sea operations will be provided personal protection equipment to eliminate respiratory hazards. These hazards include, but are not limited to, byproducts of combustion(smoke, heat, toxic gases, and oxygen deficiency), which present a working environment that is immediately dangerous to life and health (IDLH). This policy establishes when respiratory protection shall be used in shall meet the intent of the occupational safety and health administration OSHA respiratory protection standard, 29 CFR 1910.134 and amendments.

The use of self-contained breathing apparatus SCBA shall be worn at all IDLH atmospheres. Engineering controls, such as ventilation, maybe you when the incident commander is able to determine, by metering or other means, that no respiratory hazards exists. The incident commander must be certain that no respiratory hazard exists before respiratory protection can't be removed. Ventilation during structural firefighting shall not be considered as a substitute for the use of respiratory protection.

## **SCOPE AND APPLICATION:**

this program shall apply to All town of Watertown fire department members who may be or are required to wear respiratory protection work firefighting, or other emergency operations where a IDLH or other respiratory hazards exists.

The town of Watertown fire Department will be responsible for any required expenses resulting from the employee's participation in the respiratory protection plan.

## **DEFINITIONS:**

IDLH - immediately dangerous to life and health, means it atmosphere that poses an immediate threat to life, would cause irreversible adverse health effects, or would impair and individuals ability to escape from a dangerous atmosphere. This would include structural fire, chimney fire, dumpster fires, hazardous materials incidents, vehicle fires, or any other operations which may pose a respiratory hazard.

Rescue team - this team shall consist of at least two firefighters in full protective clothing with SCBA, and portable radios and rescue equipment immediately available. One member shall remain outside the entry point, while the other members may perform limited outside duties, designated by the incident commander as long as those duties do not jeopardize the safety of the interior firefighters.

Buddy system - operating in teams of two or more firefighters. Under this system, no single firefighter shall be assigned a task to reform alone and a IDLH atmosphere. Members operating under the buddy system shall maintain voice or visual contact with the other team members.

Medical evaluation - shall mean the completion of medical questionnaire forms similar to that found in appendix C of 29 CFR 1910.134 and reviewed by a professional licensed health care provider (PLHCP).

Medical examination - shall mean a physical examination by a professional licensed health care provider, selected by the town of Watertown fire district.

Fit testing - a test conducted at each individual who is expected to wear a respirator. The fit test will be done using the face be selected for that individual, to ensure a proper seal. Fit testing shall meet the QLFT protocol found in appendix B of 29 CFR 1910.134.

### **RESPONSIBILITIES:**

the Fire Chief Joe 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.

Developing and implementing a budget to administer the respiratory protection program.

Appointment of the respiratory program administrator.

Determining those individuals required to participate in the program.

Assist the program administrator in the respiratory protection

The program administrator is responsible for administering and overseeing the respiratory protection program. The program administrator may delegate certain responsibilities and duties to other company officers. Duties of the program administrator shall include:

Identify work areas or operations that require individuals to wear respirators.

Select the respiratory protection options.

Develop and implement the respiratory protection program.

Ensure that all individuals expected to use respirators are given a medical evaluation.

Provide a copy of the program and job task analysis to the professional licensed health care provider.

Ensure that physical exams are conducted if required by the professional licensed health care provider.

Implement a fit testing schedule for all individuals expected to wear a respirator.

Institute a respirator training and retraining program.

Ensure proper storage and maintenance of respirators.

Develop and maintain all respirator training and respirator records.

Evaluate and update the program as needed.

Company officers are responsible for ensuring that the respiratory protection program is implemented. In addition to being knowledgeable about the program requirements for their own protection. Company officers shall ensure that the program is understood and followed by all individuals under their charge will. Duties of company officers include:

Ensure that individuals under their supervision have received appropriate training, fit testing, and medical evaluations according to the established schedule.

Ensuring the availability of SCBA for all personnel working in and IDLH atmosphere.

Enforcing the proper use of S CBA when necessary.

Ensuring that S CBA's are properly cleaned, maintained, and stored according to the respiratory protection program.

Continually monitor work areas and operations to identify respiratory hazards.

Report to the program administrator or deputy administrator any individual having difficulty wearing or when using S CBA.

Ensure that all personnel operating in a IDLH incidents follow the department SOG for fire scene rehabilitation.

Each firefighter/EMT/first responder shall wear his/her SCBA when and where required and in the manner in which they were trained. Each member shall:

Care, maintain, and store their S CBA as instructed.

Inform the company officer if the SCBA face piece no longer fits well and request to be refitted with the proper fitting face piece.

Inform the company officer should you have difficulty when wearing or using an SCBA.

Inform a company officer, or program administrator at any respiratory hazards that you feel are not adequately addressed in the workplace and any other concerns that you have regarding the program.

#### PROGRAM ELEMENTS:

the town of Watertown fire department currently uses MSA brand of S CBA. This S CBA system is certified by NFPA and NIOSH and shall be used in accordance with the certifications.

Personnel shall be fit tested annually. Should the individual require a different mask than the standard, the department shall issue to the individual member the proper fitting mask.

#### HAZARD EVALUATION WHERE SCBA WILL BE REQUIRED:

##### Structural Firefighting:

Due to the unknown respiratory hazards posed by structural firefighting, all members Of The Town Of Watertown Fire Department engaged in interior structural firefighting(as defined in the definition section of this program) shall use SCBA's. The S CBA shall remain in use until overhaul is complete and the fire is determined to be out by the incident commander, or the respiratory hazard has been eliminated and deemed safe.

Firefighters who are performing exterior operations at a structural fire may be required to use SCBA, depending on the operation and a potential respiratory hazard as determined by the incident commander, safety officer, or company officer.

Each and every firefighter using S CBA shall be required to go through fire scene rehab. After each air cylinder is used, and before reentering the structure. Firefighters must complete all aspects of rehab. On scene medical personnel have the final approval before a firefighter can't reenter the IDLH atmosphere.

##### Vehicle fires:

vehicle fires are known to produce toxic gases that may be IDLH. Firefighters who are engaged in vehicle firefighting operations shall use S CBA while performing this operation.

##### Dumpster fires or trash container Fires:

these fires (if not classified as a structure fire), when involved in a fire shall require firefighters to wear SCBA while performing these operations.

##### Hazardous Materials Incidents:

firefighters who respond to or operate at a hazardous materials incident may be exposed to a variety of known and unknown respiratory hazards. S CBA shall be worn by All

personnel operating in the hot zone, warm zone, and the decontamination zone as determined by the incident commander.

**Chimney Fires:**

Firefighters operating on the roof level at chimney fires shall be required to wear SCBA's.

**Carbon Monoxide Incidents:**

due to the fact that carbon monoxide presents a potential respiratory hazard, personnel operating at carbon monoxide alarms shall wear SCBA until the structure has been declared safe and by verifying with a carbon monoxide meter.

**Special Rescue Situations:**

special rescue situations may include below grade, confined space, and other areas where the incident commander cannot ensure the quality of the atmosphere. In these cases personnel shall be required to wear SCBA. Engineering controls such as ventilation may be used with constant monitoring and may ensure with certainty the quality of the atmosphere and the rescue environment.

**Other Respiratory Hazards:**

Nothing in this guideline is intended to restrict the incident commander, safety officer, or company officer from requiring personnel to use SCBA when she/he suspects a potential respiratory hazard. Officers are encouraged to adequately size up the situation and consider the safety of personnel when making decisions regarding SCBA. When in doubt, order SCBA to be worn.

**UPDATING THE HAZARD ASSESSMENT:**

the program administrator shall review and update the hazard assessment annually, or as needed.

**MEDICAL EXAMINATION:**

all new members shall be required to complete a medical evaluation form, complete a medical evaluation and must receive a professional licensed health care provider certification that they are able to wear an SCBA. Any new member refusing a medical evaluation will be dismissed from the department.

**MEDICAL EVALUATION:**

personnel who may be subject to or required to wear SCBA must pass a medical evaluation before being permitted to wear SCBA and training, or on the job. Personnel are not permitted to wear SCBA until a professionally licensed health care provider has determined that they are medically able to do so. Any personnel refusing a medical evaluation will not be allowed to work in an area requiring a SCBA.

A professionally licensed health care provider will provide the medical evaluation. Medical evaluation procedures are as follows:

the medical evaluation will be conducted using a questionnaire provided in appendix C of the respiratory protection standard.

To the extent feasible, the town of Watertown fire 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 the professionally licensed health care provider 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 department's

professionally licensed health care provider. Employees will be permitted to fill out the questionnaire on employer time.

Follow-up medical evaluations will be provided to employees as required by the standard, or as required by the professionally licensed health care provider.

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 S CBA, 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 the age 34

Or:

the employee reports signs and/or symptoms related to their ability to use an S CBA, such as shortness of breath, dizziness, chest pains, or wheezing.

The professionally licensed health care provider, or supervisor informs the program administrator that the employee needs to be reevaluated.

Information from the program, including observations made during fit testing and program evaluation, indicates a need for re-evaluation.

A change occurs in the workplace that may result in an increased psychological burden on the employee.

All examinations, evaluations and questionnaires are to remain confidential between the employee and the professionally licensed health care provider.

#### FIT TESTING:

fit testing is required for all employees wearing S CBA. Fit testing will be conducted in accordance with the following schedule:

prior to being allowed to wear S CBA.

Annually.

When there are changes in the employees physical condition that could affect respiratory fit (obvious changes in body weight, facial scarring, etc.).

Employees will be fit tested with the make, model, and size S CBA face piece that they will be actually using.

The program administrator will conduct fit test following the QLFT protocol found in appendix B of the respiratory protection standard.

#### RESPIRATORY USE:

S CBA 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 procedures:

employees will use her S CBA's under conditions specified by this program, and accordance with the training they receive on the use of each particular model. In addition, the S CBA shall not be used in a manner for which it was 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), as specified in appendix B -1 of the respiratory protection standard.

Employees who detect operational problems with, or experience failure of, the S CBA 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, eyeglasses, or protective hoods in a manner that may interfere with the face to face piece seal. Facial hair or any other hairstyle may not interfere with the face to face piece seal.

#### Interior Structural Firefighting:

employees engaged in interior structural firefighting shall:

- Use S CBA for all fires beyond the incipient stage or as directed by the incident commander.

- Continue to use S CBA until the completion of overhaul operations.

- Work at a minimum of pairs and maintain voice and visual contact with members of each team.

- Be supported by two standby members who are available for immediate rescue of interior firefighters, at each point of entry as determined by the incident commander.

- Each standby member shall be dressed in full protective clothing and have S CBA immediately available to them. The function of one of the standby members shall be accountability of the firefighters inside the structure. The other standby member may assume other duties or 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 incident commander from establishing a rapid intervention team(RIT) to replace the two firefighters outside, provided a RIT team is established for each entry point as determined by the incident commander.

In the event that the incident commander determines that need to perform emergency rescue activities upon arrival of the entire team, the incident commander must:

- Notify dispatch of entry without the two standby members.

- Enter with or without a charged headline, perform the emergency rescue, and immediately leave the structure.

- After the incident, document in writing, to the fire chief a detailed explanation regarding the deviation of policy.

#### Use other than interior structural firefighting:

For incidents requiring S CBA use other than interior structural firefighting, employees shall use S CBA whenever they may be exposed to environments which may become IDLH or other respiratory hazard, as directed by the incident commander.

When the incident commander cannot ensure the employee's ability to escape from the hazardous environment, one employee shall be stationed at the point of entry maintain accountability and be readily available to perform immediate rescue.

#### AIR QUALITY:

S CBA cylinders shall be filled with grade D compressed air only. The program administrator shall ensure that the compressed air maintains trade D quality and that the air compressor service and tested at least annually.

## CLEANING:

S CBA are to be cleaned, and disinfected after every use. The cleaning policy to be as follows:

- Disassemble the S CBA, removed the cylinder, mask and PASS device.

- Wash the face piece and associated parts and mild detergent with warm water.

- Disinfect the face these with a manufacturer's recommended solution.

- Rinse completely and clean warm water.

- Air dry in a clean area.

- Re-assemble the S CBA, test the function, and replace any defective parts, retest function.

- Place back on apparatus, masks are to be stored in a bag, or within an enclosed cab.

Field cleaning of S CBA is to be done using 70% isopropyl alcohol wipes. There will be no sharing of S CBA masks in the field without proper field cleaning.

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 will in turn notify the program administrator.

## MAINTENANCE:

S CBA are to be properly maintained at times in order to ensure that they function properly, and adequately protect the employees. 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 personnel will be conducted by the manufacturer or their designee.

The following items are to be checked at each and weekly. The findings of these checks are to be properly recorded in the S CBA maintenance log:

### Face Piece:

- cracks, tears, holds.

- Face piece distortion.

- Cracked, loose, or damaged lenses

### Head Straps:

- Brakes, or tears.

- Broken buckles.

### Valves in fittings:

- residue or dirt.

- Damage to valve or valve material.

### Gauges, regulators and air lines:

- damage to or in accuracy.

- Leaks

### PASS alarm:

- operation.

- Battery condition.

### Body harness:

- tears, rips, fraying or otherwise damaged straps.

- Broken buckles.

### Cylinder:

- air supply full.

- Hydrostatic testing date current.

- General cylinder condition.

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

- Temporarily take the S CBA of the service until it can be repaired.
- Perform a simple repair on the spot.
- Dispose of the S CBA, or part due to non-repairable condition.

When a respirator is taken out of service, it will be appropriately tagged indicating the problems, and stored in the S CBA maintenance room until it can't be repaired or sent out for service.

#### STORAGE:

storage of S CBA 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 and Boulder, or other contaminants.

#### TRAINING:

Annually, each member shall attend and successfully complete S CBA 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 positive effect of this of the S CBA.
- Limitations and capabilities of S CBA.
- 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 program to ensure that current programs are being effective and properly implemented. Employees are properly using S CBA. The program continues to be effective.

#### RECORDKEEPING:

the program administrator shall keep and maintain all documentation in the areas of medical evaluations (professionally licensed healthcare providers recommendations only). Fit testing, and training records.