

Standard Operating Guidelines

RESPIRATORY PROTECTION PROGRAM

Guideline # 310.07

Date: 5/09R

PURPOSE

This program establishes District policy, responsibilities, and the requirements for the protection of employees whose job requires the use of respiratory protection.

This document will also provide assistance to the employee in the use and care of respiratory equipment.

POLICY

It is the policy of Fire District # 3, to maintain comprehensive occupational safety and health programs predicated upon sound engineering, education, and enforcement, in accordance with the requirements of N.J. P.E.O.S.H.A, N.J.A.C. 12-100-4.2 practices for proper respiratory protection must be implemented for all members.

RESPONSIBILITY

The Jackson Fire Department Safety Committee is responsible for all facets of this program and has full authority to make necessary decisions to ensure success of this program. Failure of any individual to conform to this policy shall result in appropriate discipline.

PROCEDURES

General

Firefighters shall wear a self-contained breathing apparatus (SCBA) under the following conditions:

- While engaged in interior structural firefighting
- While working in confined spaces where toxic products or an oxygen deficient atmosphere may be present
- During emergency situations involving toxic substances and
- During all phases of firefighting and overhaul

All members of Jackson Fire District 3 shall adhere to the requirements of Mandatory Wearing of SCBA.

Members wearing respiratory protective equipment shall be trained in its proper use.

Members shall maintain their respiratory protective equipment in a state of readiness and inspect the equipment before each use. Each member is to conduct a negative and positive pressure fit test prior to use.

Firefighters wearing an SCBA must activate the personal alert safety system (PASS) device before entering an area where respiratory protection is required.

Firefighters shall not remove the SCBA face piece any time in the dangerous atmosphere. SCBA shall be used in accordance with the manufacturers instructions (see Appendix A).

All firefighters shall continue to wear an SCBA until the officer in charge determines that respiratory protection is no longer required.

The use of the airline respirator located on unit 5503 shall only be used for non-fire related operations. The airline respirator shall be worn in combination with an auxiliary SCBA or an appropriate escape type SCBA.

PROTECTIVE CLOTHING

Firefighters wearing an SCBA shall be fully protected with the use of approved structural firefighting clothing that meets the requirements of the PEOSH Standards for Firefighters (N.J.A.C. 12:100-10). Protective clothing shall include turnout coat, bunker pants, gloves, boots, helmet, fire resistant hood, and PASS device.

PROCEDURES FOR INTERIOR STRUCTURAL FIREFIGHTING

At interior structural fires, the incident commander shall ensure that:

- At least two firefighters enter the immediately dangerous to life and health (IDLH) atmosphere and remain in visual or voice contact with one another at all times:
- At least two firefighters will be located outside the IDLH atmospheres; and
- All firefighters engaged in interior structural firefighting will use SCBA's.

NOTE:

One of the firefighters located outside of the IDLH atmosphere may be assigned to an additional role, such as incident commander in charge of the emergency or safety officer, so long as the firefighter is able to perform assistance or rescue without jeopardizing the safety or health of any firefighter working at the incident.

Nothing in this section is meant to preclude firefighters from performing emergency rescue activities before an entire team has assembled.

There must always be at least two firefighters stationed outside during interior structural firefighting. They must be trained, equipped, and prepared to enter if necessary to rescue firefighters inside. However, the incident commander has the responsibility and flexibility to determine when more than two outside firefighters are necessary given the circumstances of the fire. The two-in/two-out rule does not

require an arithmetic progression for every firefighter inside, i.e. the rule should not be interpreted as four-in/four-out, eight-in/eight-out, etc.

Firefighters will wait to commence interior structural firefighting, until the proper number of firefighters can be assembled on scene as required by the response. During this time, the fire will be attacked only from the outside, sizing-up operations will occur and emergency rescue necessary to save lives may take place.

One of the two exterior firefighters may be have other duties such as serving as the incident commander, or safety officer. However, one of the outside firefighters must actively monitor the status of the inside firefighters and will not be assigned additional duties. The second outside firefighter may be involved in a wide variety of actives. Both of the outside firefighters must be able to provide support and assistance to interior firefighters; any assignment of additional duties for one of the outside firefighters must be weighed against the potential for interference with this requirement. Proper assignment of firefighting activities at an interior structural fire must be determined by the incident commander and is dependent on the existing firefighting situation. Consideration of all worksite variables and conditions, and the judgment of the incident commander is critical.

The two firefighters entering an IDLH atmosphere to perform interior structural firefighting must maintain visual or voice communication at all times. Electronic methods of communications such as the use of radios shall not be substituted for direct visual contact between team members in the danger area. However, reliable electronic communication devices are not prohibited and certainly have value in augmenting communication and may be used to communicate between inside team members and outside standby firefighters.

TRAINING

SELF CONTAINED BREATHING APPARATUS TRAINING

Firefighters wearing respiratory protection shall be trained in proper use, cleaning and maintenance. No firefighter shall wear respiratory protection without training as specified in this document.

Training in the use of respiratory protection shall be done in two phases. Each new member will be given initial training before using respiratory protection and refresher training shall be ongoing thereafter given by a qualified Instructor level I certification and SCBA/Smokehouse certificate.

NEW RECRUIT TRAINING

Initial training is to be providing during the Fire Fighter I course at an approved Fire Academy. No firefighter is to use respiratory protection unless training has been successfully completed.

Recruit training shall be provided to all members prior to assignment as an interior firefighter within Fire District 3. Included in this training shall be:

- a) An opportunity to handle respirator
- b) Assurance of proper fitting
- c) Method of determining face to face seal
- d) Long familiarization period of wear in normal air
- e) Explanation of the need for respiratory protection and the consequences of improper usage.
- f) Discussion of how to recognize and handle emergencies dealing with respiratory protective equipment.
- g) Maintenance and operational inspection.

ANNUAL TRAINING

On-going training shall be provided to all firefighters of this department annually.

On an annual basis every member shall receive a minimum of four hours of SCBA training.

Each firefighter must pass a face piece fit-test during initial and annual training. Appendix B of this program contains the fit-test protocol and example fit-test record.

COURSE CONTENT

Initial and annual training in respiratory protection shall be conducted as specified in Appendix C.

E. FILL STATION TRAINING

SCBA cylinders will be filled only by firefighters who have completed fill station training. Retraining will be provided annually.

F. COURSE CONTENT

Initial and annual fill station training shall be conducted as specified in Appendix D.

RESPIRATOR FITTING AND SEAL CHECK

A. FITTING AND SEAL CHECK

Each Firefighter must pass a face piece fit-test during initial and annual training. Appendix B of this program contains a copy of our fit test record. Each Firefighter is assigned their own mask.

B. INSPECTION BEFORE USE

When using SCBA, each firefighter shall select and wear the correct size face piece as determined by initial and annual fit testing. A firefighter shall not wear respiratory protection unless the proper size face piece is available and the equipment is in proper working condition according to the manufacturer's specifications.

C. EFFECTIVE SEAL REQUIRED

An effective face-to-mask piece seal is extremely important when using respiratory protective equipment. Minor leakage can allow contaminants to enter the face piece, even with a positive pressure SCBA. Any outward leakage will increase the rate of air consumption, reducing the

time available for use and safe exit. The face piece must seal tightly against the skin, without penetration or interference by any protective clothing or other equipment.

Nothing can be between the sealing surface of the mask and the face of the wearer, including but not limited to, eyeglasses, protective hoods, and beards or other facial hair. Beards and facial hair that interfere with the face-piece shall be prohibited for members required to use SCBA.

Firefighters shall perform a seal check prior to every SCBA use. SCBA can only be worn when an adequate seal is achieved. (Note: the required seal check procedures are found in Appendix B-1 of the PEOSH Respiratory Protection Standard. The PEOSH Respiratory Protection Standard is found in Appendix G of this document).

INSPECTION, STORAGE, MAINTENANCE AND AIR SUPPLY

INSPECTION

Each member shall inspect their own SCBA to establish the unit is fit for service as per the manufacturer's instructions. Career members shall inspect their unit assigned to them at the beginning of each shift. Volunteer members will perform a brief inspection prior to donning.

INSPECTION SCHEDULE

All SCBA and spare cylinders shall be inspected after each use and weekly during truck checks by career staff. Guidelines for inspection are in the manufacturers instructions found in Appendix A of this program.

After each inspection, the appropriate forms (see Appendix E) shall be completed. SCBA units determined to be unfit shall be taken out of service, and tagged with a description of the particular defect.

In the event replacement or repair of SCBA components is necessary, it shall be performed according to manufacturer's instructions and only by persons trained and certified by the manufacturer or returned to the manufacturer's service facility. Firefighters will not subject SCBA units to unnecessary abuse due to neglect and/or carelessness. Caution must especially be exercised to protect the face piece section of the mask from being scratched or damaged.

Each SCBA shall be cleaned and disinfected after each use. Only cleaning/sanitizing solutions for respiratory equipment will be used for cleaning and disinfections. (NOTE: the required SCBA cleaning procedures are found in Appendix B-2 of the PEOSH Respiratory Protection standard. The PEOSH Respiratory Protection standard is found in Appendix G of this document).

SCBA cylinders shall be hydrostatically tested within the period specified by the manufacturer and applicable governmental agencies. Metal cylinders must be tested every five (5) years and composite cylinders every five (5) years. Composite cylinders will be removed from service after 15 years from the first hydrostatic test date.

SCBA cylinders shall be emptied per the instructions of the manufacturer if not utilized within a 3-month period and shall be refilled by the career staff.

STORAGE

All units shall be stored so that they are protected against direct sunlight, dust accumulation, severe temperature changes, excessive moisture, fumes and damaging chemicals. Care is to be taken so that the means of storage does not distort or damage rubber or elastomer components. All regulators must be stored in the holder on the waist belt to avoid dirt and debris from entering the device.

AIR SUPPLY

Breathing air in the SCBA cylinder shall meet the requirements of the Compressed Gas Association G 7.1 1989, Commodity Specification For Air, with a minimum air quality of Grade D. The Fire Department uses no outside vendors for supply of compressed breathing air.

The purity of the air from the Fire Department's air compressor shall be checked by the Districts authorized vendor four times per year and air samples shall be sent to a lab for testing.

This fire department shall assure that sufficient quantities of compressed air are available to refill SCBA for all emergencies. This shall be accomplished through this departments cascade and mutual aid.

Only personnel who have completed fill station training shall fill air cylinders for SCBA.

MEDICAL EVALUATION

A medical evaluation to determine the firefighter's ability to wear SCBA will be provided by the Districts authorized medical provider. Only firefighters that are medically able to wear SCBA will be allowed to do so.

Medical surveillance shall be conducted through a two step process:

- a. Pre-employment examination.
- b. Annual routine medical examination.

The pre-employment physical shall screen out those individuals who are physically or psychologically unfit to wear respirators. This examination shall also be used to establish baseline data against which to assess physiological changes in the member.

Members shall complete during the pre-employment physical a respiratory protection questioner.

Annual completion of the questioner as well as spirometric testing will determine continued use of respiratory protection equipment.

Appendix F contains the medical evaluation protocol.

RECORDKEEPING

Completed SCBA inspection Forms will be maintained by the Board Of Fire Commissioners of Fire District # 3.

Records / results of air quality tests will be maintained by the Board Of Fire Commissioners of Fire District # 3.

Completed fit test records will be maintained by the Board Of Fire Commissioners of Fire District # 3.

Each firefighter will receive a copy of his/her fit test record.

Records for both recruit training as well as on-going SCBA training will be maintained by the Board Of Fire Commissioners of Fire District # 3.

Certificates of completion for Firefighter I courses will be maintained by the Board Of Fire Commissioners of Fire District # 3 and the Jackson # 1 Vol. Fire company.

Fill station training records will be maintained by the Board Of Fire Commissioners of Fire District # 3.

Medical evaluation results forms will be maintained by the Board Of Fire Commissioners Of Fire District # 3.

SUMMARY OF RESPIRATORY PROTECTION PROGRAM RECORDS

<u>SCBA Inspection Records</u>	
After Use Monthly	until Replaced one month
SCBA Maintenance repair Records	life of equipment
Air Quality Tests	1 year
Fit Test	1 year
Medical Evaluation	length of employment, Plus thirty years
Training	5 years
Records documenting training for Those who fill cylinders	1 year

PROGRAM EVALUATION/MONITORING

The effectiveness of the SCBA program shall be evaluated and corrective actions taken by the safety committee to ensure the respiratory protection program is properly implemented. The safety committee will regularly consult with firefighters to assess their views on the effectiveness of the program and to identify any problems.

The evaluation will be conducted annually by the safety committee. The evaluation will ensure:

Procedures for purchasing of approved equipment are in place;
All firefighters are being properly fitted with respiratory protection;
All firefighters are properly trained;
The proper equipment, cleaning, inspection, and maintenance procedures are implemented;
The required records are being kept; and
Changes are implemented to correct deficiencies.

The results of the program evaluation shall be presented to the Chief Officers in a written report that lists plans to correct faults and the target dates for their implementation.

Periodic monitoring of the respiratory protection program is necessary to ensure that all firefighters are adequately protected. Random inspections shall be made by Chiefs to ensure that the provisions of the program are being properly implemented.

APPENDIX A – MANUFACTURER’S INSTRUCTIONS

A complete copy of the Manufacturers specifications, instructions and safety procedures may be viewed at the Board of Fire Commissioners Office or by contacting a Fire Officer for a copy of this information. A brief description of our equipment is listed below.

Scott SCBA model AIR-PAK 50

Nominal weight with charged cylinder - 26.0 LB / 11.8 oz

Carbon wrap cylinder

Nominal weight of cylinder with valve assembly - 17.80 LB

APPENDIX B – RESPIRATOR FIT TEST RECORD

Jackson Township Fire Department
Fire District # 3, Jackson, NJ 08527

Date; (of fit test) _____

Firefighter: _____

SCBA Manufacturer: _____

Model: _____

NIOSH Approval Number: _____

Face piece Size:

Small _____ Medium _____ Large _____

Conditions, which could affect respirator, fit:

- Clean shaven Facial Scar Dentures Absent
- 1-2 Day Beard Growth 2+ Day Growth
- Moustache Glasses

Comments: _____

Fit test protocol used: _____

- Pass Fail

Comments: _____

Employee Acknowledgment of test Results: _____

Employee Name (print): _____

Employee Signature _____ Date: _____

Test conducted by (print): _____ Date: _____

Signature: _____

APPENDIC C – SCBA TRAINING OUTLINE

At a minimum, the following topics are to be covered in the SCBA training.

1. Nomenclature of the SCBA unit.
2. The make and model of the SCBA unit.
3. Use and care of SCBA unit.
4. Cleaning and disinfecting of SCBA unit and mask.
5. Why the SCBA is necessary and how improper fit, usage, or maintenance can compromise the protective effect of the respirator.
6. What the limitations and capabilities of the SCBA are.
7. How to use the SCBA effectively in emergency situations, including situations where the SCBA malfunctions.
8. Instruction on recognizing medical signs and symptoms that may limit or prevent the effective use of the SCBA
9. How to inspect, put on and remove, use and check the seals of the SCBA.
10. What the procedures are for maintenance and storage of the SCBA.
11. Donning and doffing procedures.
12. The general requirements of the PEOSH Respiratory Protection Standard.
13. Proper procedure and notification process for out of service equipment.

APPENDIX D – FILL STATION TRAINING OUTLINE

At a minimum the following topics are to be covered in the fill station training:

1. Procedures for inspecting the SCBA cylinder for damage.
2. Information to ensure that the cylinder has the proper hydrostatic test date.
3. Information to ensure that composite cylinders older than 15 years are not refilled and are removed from service.
4. Procedures for safely operating the cascade system and booster unit and filling of and from unit 5503.
5. Information on the importance of using at least grade D air.
6. Information on the consequences of cylinder failure.
7. The manufactures instructions for the fill station.
8. Record keeping requirements.
9. Proper documentation of out of service cylinders.

APPENDIX E – AFTER USE/DAILY INSPECTION FORM
 SCBA INSPECTION CHECKLIST

Type of Check: Weekly Monthly After Use

Checked By: _____

Date: _____

Regulator No.							
Bottle Number							
Harness Check							
Conditions of Straps, Buckles, Backplate							
O-Ring in Place							
High Pressure Hose							
Low Pressure Hose							
Operational Check							
Bottle Condition							
Cylinder Pressure							
Harness Gauge Pressure							
Pressure Function							
Bypass Function							
Pack Alarm							
Mask Check							
Regulator							
Exhalation Valve							

Regulators:

1. 89500028	10 89500034	19. 89500051	28 89500103
2 89500029	11 89500017	20 89500049	29 89500347
3 89500050	12. 895000345	21 89500027	30 NK0223130EZVS3
4 89500355	13. 89500035	22.89500042	31 NK0223073EZVS3
5 89402202	14. 89500337	23. 89500043	
6 89500018	15. 89500097	24 89500339	
7 89500037	16. 89500038	25.89500098	
8 89500352	17. 89500093	26.5000346	
9 89500099	18. 89500033	27.89500348	

Bottles:

1 ALT695-2058	2 ALT695-2234	3 ALT695-2347
4 ALT695-2279	5 ALT695-2239	6 ALT695-1657
7 ALT695-2204	8 ALT695-2411	9 ALT695-2050
10 ALT695-2261	11 ALT695-2314	12 ALT695-2051
13 ALT695-2200	14 ALT695-2193	15 ALT695-2112
16 ALT695-2315	17 ALT695-2108	18 ALT695-2302
19 ALT695-5133	20 ALT695-2027	21 ALT695-2262
22 ALT695-2205	23 ALT695-2115	24 ALT695-2330
25 ALT695-2253	26 ALT695-2041	27 ALT695-2422
28 ALT695-2290	29 ALT695-2255	30 ALT695-2246
31 ALT695-2403	32 ALT695-2091	33 ALT695-2249
34 ALT695-2413	35 ALT695-2416	36 ALT695-2141
37 ALT695-1982	38 ALT695-2169	39 ALT695-2312
40 ALT695-2105	41 ALT695-2029	42 ALT695-2092
43 ALT695-2154	44 ALT695-2412	45 ALT695-2322
46 ALT695-2150	47 ALT695-2251	48 ALT695-2111
49 ALT695-1974	50 ALT695-2210	51 ALT695-2282
52 ALT695-2423	53 ALT695-2206	54 ALT695-2195
55 ALT695-2431	56 ALT695-2294	57 ALT695-2190
58 ALT695-2325	59 IL6896	60 IL6978
61 IL6494	62IL6447	63IL6986
64 IL6440	65 IL6454	66 IL6420
67 IL6477	68 IL6512	69 SBP7621
70 SBP8114	71 IL107539	72 IL107546
73 IL437952	74 A086599	75 A086853
76 3ALT1596	77 3ALT6709	

APPENDIX F – MEDICAL EVALUATION PROTOCOL

Medical evaluation will be provided to firefighters before they are fit tested for respirator use. The Boards approved and designated medical provider will provide medical evaluations. Medical evaluation procedures are as follows:

The medical evaluation will be conducted using the PEOSH questionnaire. The questionnaire is provided in Appendix C of the PEOSH Respiratory Protection Standard. The approved medical provider will provide a copy of this questionnaire to all firefighters requiring medical evaluations.

Firefighters will receive follow-up medical evaluations as required by the PEOSH respiratory Protection Standard, and or as deemed necessary by the boards approved medical provider.

Upon request, the firefighter will have the opportunity to speak with the health care professional about their medical evaluation.

The District Chief has provided the Boards approved medical provider with a copy of this program, a copy of the PEOSH Respiratory Protection Standard, information on the type of SCBA used by this department, information on the frequency and length of SCBA use, potential temperature and humidity extremes, and information on turnout gear used for firefighting. This information is located in Appendix H of this document.

Additional medical evaluations will be provided to firefighters under the following circumstances:

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

The Boards approved medical provider, health care provider or supervisor shall inform the District Chief that a firefighter needs to be reevaluated;
Information from this program, including observations made during fit testing and program evaluation, indicates a need for reevaluation.

All examinations and questionnaires are to remain confidential between the firefighter and the health care provider. All medical records and completed questionnaires will not be kept by this department. The medical records will be under the control of the authorized medical provider.

The boards approved medical provider will provide the District Chief and the Firefighter with a written recommendation regarding the firefighter's ability to wear a respirator. Only the following information will be provided:

A statement on the firefighters ability to wear a respirator
The need for follow-up medical evaluation if any are necessary, and
A statement that the medical provider has provided the firefighter with a copy of the recommendation.

Medical records will be maintained in compliance with the PEOSH Access to Employee Exposure and Medical Records (29CFR1910.1020). Family Practice will give each firefighter a copy of their medical records.

APPENDIX F-1 – INFORMATION FOR the Boards approved medical provider

SCBA

This department uses the Scott SCBA model Air-Pak Fifty. The approximate weight is 27 pounds.

Frequency of use varies from day to day and also according to personnel availability. This department does have a two-bottle rule in effect, which states that no firefighter will use more than two bottles of air at any fire location. Bottles contain approximately forty-five minutes of air, Actual air consumption is usually quicker depending on exertion and firefighter fitness.

Actual time a firefighter may be wearing a SCBA depends on the situation presented, but not more than two hours.

Firefighters are exposed to extreme temperatures from fire products as well as the weather.

This department supplies each firefighter with:

- Helmet
- Goggles
- Gloves
- Nomex Hood
- Cairns PBI/Kevlar turnout Coat
- Cairns PBI/Kevlar bunker Pants
- Boots

The approximate weight of this protective equipment is 30 pounds.

Approved:

Date:
District Chief

Date:
Company Chief:

Date:
Board