

Self Contained Breathing Apparatus Fit Test Procedure

A-034b

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From NYS Office of Fire Prevention & Control SCBA

All members must pass a fit test prior to the initial use of the SCBA. Additional fit test is required whenever the member, the Program Administrator, any Officer, or Department Physician observes or reports changes in the member's physical condition that could affect SCBA fit. If the member changes to a different size facepiece, a new fit test is required. In addition, all members are to have a new fit test performed at least once per year. The testing consists of four components:

1. Odor Threshold Screening
2. Mask Selection
3. Testing
4. SCBA Test Exercises

1. Odor Threshold Screening

1.1 The Odor Threshold Screening, performed without wearing a mask, is intended to determine if the individual tested can detect the banana like odor of isoamyl acetate (IAA) at low levels.

1.2 The screening test shall be conducted in a room separate from the room used for actual fit testing. The two rooms shall be well-ventilated to prevent the odor from becoming evident in the general room air where testing takes place.

1.3 Two containers will be used for the test. In one container, cover the bottom with a piece of paper towel. This will be the Test Blank Container. In the second container, place an activated Scott fit-Chek ampoule on the bottom and cover with paper towel. This will be the Odor Test Container. Place lids on both containers. The odor Test and Test Blank Container lids shall be labeled (e.g., 1 and 2) for container identification. Labels shall be placed on the containers so that they can be peeled off periodically and switched to maintain the integrity of the test.

1.4 Explain to each member that the purpose of this test is to determine if you can smell banana oil. Unscrew the lid of each container, one at a time, and have the member sniff at the mouth of the container. They should indicate which container contains the banana oil.

1.5 If the test subject is unable to correctly identify the container containing the odor test solution, the IAA qualitative fit test shall not be performed.

1.6 If the test subject correctly identifies the jar containing

2. Mask Selection

2.1 The test subject shall be allowed to pick the most acceptable mask from a sufficient number of mask models and sizes so that the mask is acceptable to and correctly fits the user.

2.2 Prior to the selection process, the test subject shall be shown how to put on a mask, how it should be positioned on the face, how to set strap tension, and how to determine an acceptable fit. A mirror shall be available to assist the subject in evaluating the fit and positioning of the mask. This instruction may not constitute the subject's formal training on mask use, because it is only a review.

2.3 The test subject shall be informed that he/she is being asked to select the mask that provides the most acceptable fit. Each mask represents a different size and shape, and if fitted and used properly, will provide adequate protection.

2.4 The test subject shall be instructed to hold each chosen mask up to the face and eliminate those that obviously do not give an acceptable fit.

2.5 The more acceptable masks are noted in case the one selected proves unacceptable. The most comfortable mask is donned and worn at least five minutes to assess comfort.

2.6 Assessment of comfort shall include a review of the following points with the test subject and allowing the test subject adequate time to determine the comfort of the mask:

- a) Position of the mask on the nose
- b) Room for eye protection
- c) Room to talk
- d) Position of mask on face and cheeks

2.7 The following criteria shall be used to help determine the adequacy of the mask fit:

- a) Chin properly placed
- b) Adequate strap tension, not overly tightened
- c) Fit across nose bridge
- d) Respirator of proper size to span distance from nose to chin
- e) Tendency of mask to slip
- f) Self-observation in mirror to evaluate fit and mask position

2.8 The test subject shall conduct a user seal check recommended by the make manufacturer. Before conducting check, the subject shall be told to seat the make on the face by moving the head from side-to-side and up and down slowly while taking in a few slow deep breaths. Another mask shall be selected and retested if the test subject fails the user seal check test.

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

2.10 If a test subject exhibits difficulty in breathing during the test, she or he shall be referred to a physician or other licensed health care professional, as appropriate, to determine whether the test subject can wear a mask while performing her or his duties.

2.11 If the employee finds the fit of the mask unacceptable, the test subject shall be given the opportunity to select a different mask and to be retested.

3. Testing

3.1 Prior to the commencement of the fit test, the test subject shall be given a description of the fit test and the test subject's responsibilities during the test procedure. The description of the process shall include a description of the test exercises that the subject will be performing. The mask to be tested shall be worn for at least 5 minutes before the start of the fit test.

3.2 At the beginning of the test, the tester will crush an ampoule between thumb and forefinger (following directions on back of Scott Fit-Chek ampoule box). He will hold the ampoule approximately 1 to 2 inches from the face and pass the ampoule around the face seal area, while wearer is performing SCBA Test Exercises.

3.3 If at any time during the test, the subject detects the banana-like odor of IAA, the test is failed.

3.4 If the test is failed, the subject shall return to the selection room and remove the mask. The test subject shall repeat the odor sensitivity test, select and put on another mask, return to the

test area and again begin the fit test procedure. The process continues until a mask that fits well has been found. Should the odor sensitivity test be failed, the subject shall wait at least 5 minutes before retesting. Odor sensitivity will usually have returned by this time.

3.5 If the subject passes the test, the efficiency of the test procedure shall be demonstrated by having the subject break the mask face seal and take a breath of the ampoule.

3.6 After the test, the tester will complete a SCBA Fit Test Record on each member stating that the member passed or failed the Isoamyl Acetate Qualitative Fit Test. Chief of the Department will immediately be notified if any member fails the fit test.

4. SCBA Test Exercises

Each test exercise shall be performed for one minute. The test subject shall be questioned by the test conductor regarding the comfort of the mask upon completion of the protocol. If it has become unacceptable, another model of mask shall be tried. The mask shall not be adjusted once the fit test exercises begin. Any adjustment voids the test, and the fit test must be repeated.

4.1 Normal breathing – in a normal standing position, without talking, the subject shall breathe normally.

4.2 Deep breathing – in a normal standing position, the subject shall breathe slowly and deeply, taking caution so as not to hyperventilate.

4.3 Turning head side to side – standing in place, the subject shall slowly turn his/her head from side to side between the extreme positions on each side. The head shall be held at each extreme momentarily so the subject can inhale at each side.

4.4 Moving head up and down – standing in place, the subject shall slowly move his/her head up and down. The subject shall be instructed to inhale in the up position (i.e., when looking toward the ceiling).

4.5 Talking – The subject shall talk out loud slowly and loud enough so as to be heard clearly by the test conductor. The member will count backward from 100.

4.6 Bending over – The test subject shall bend at the waist as if he/she were to touch his/her toes. Jogging in place shall be substituted for this exercise in those test environments such as shroud type QNFT or QLFT units that do not permit bending over at the waist.

4.7 Normal breathing – Same as exercise 4.1

NEW YORK STATE OFFICE OF FIRE PREVENTION AND CONTROL
SELF CONTAINED BREATHING APPARATUS

UNION VALE FIRE DEPARTMENT

SCBA FIT TEST RECORD

Employee _____

Title _____

1. Respirator: Self Contained Breathing Apparatus (SCBA)

Manufacturer: SCOTT

Model: AIR-PAK 2.2A

2. Conditions which could affect SCBA Fit Test: (Circle all that apply)

Clean Shaven	Yes	No	
Beard Growth	Yes	No	Beard growth is not allowed below the sealing area!
Mustache	Yes	No	
Dentures	Yes	No	
Weight Loss or Gain	Yes	No	
Facial Scars	Yes	No	
Dentures Absent	Yes	No	
Glasses	Yes	No	

If any of the above interfere with the functions or seal of the Mask, fit testing is not permitted unless the condition is corrected.

3. Qualitative Fit Test (Circle) PASS FAIL

Comments:

4. Mask size used by the employee to pass the fit test _____

5. Employee Signature _____ Date: _____

6. Test Conductor Signature _____ Date: _____