EHS Fit-Testing Procedures

I. General Procedures

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

B. Prior to the selection process, the test subject shall be shown how to put on a respirator, 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 respirator. This instruction may not constitute the subject’s formal training on respirator use, because it is only a review.

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

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

E. The more acceptable facepieces are noted in case the one selected proves unacceptable; the most comfortable mask is donned and worn at least five minutes to assess comfort. If the test subject is not familiar with using a particular respirator, the test subject shall be directed to don the mask several times and to adjust the straps each time to become adept at setting proper tension on the straps.

F. 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 respirator:
   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

G. The following criteria shall be used to help determine the adequacy of the respirator 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 respirator to slip
   f) Self-observation in mirror to evaluate fit and respirator position

H. The test subject shall conduct a user seal check using negative and positive pressure seal checks as demonstrated by the program administrator. Before conducting the negative or positive pressure checks, the subject shall be told to seat the mask 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 facepiece will be selected if the test subject fails the user seal check tests.

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

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

K. If the employee finds the fit of the respirator unacceptable, the test subject shall be given the opportunity to select a different respirator and to be retested.
L. 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 respirator to be tested shall be worn for at least 5 minutes before the start of the fit test.

M. The fit test shall be performed while the test subject is wearing any applicable safety equipment that may be worn during the actual respirator use which could interfere with respirator fit.

N. The following exercises shall be performed as part of the fit test:
   a) Normal breathing: In a normal standing position, without talking, the subject shall breathe normally.
   b) Deep breathing: In a normal standing position, the subject shall breathe slowly and deeply, taking caution so as not to hyperventilate.
   c) 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.
   d) 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).
   e) Talking: The subject shall talk out loud slowly and loud enough so as to be heard clearly by the test conductor.

II. Irritant Smoke Fit Test Procedure
   A. The person being fit tested shall don the respirator without assistance, and perform the required user seal check(s).
   B. The test subject shall be instructed to keep his/her eyes closed if respirator is half-face.
   C. The test operator shall direct the stream of irritant smoke from the smoke tube toward the faceseal area of the test subject. The test operator shall begin at least 12 inches from the facepiece and move the smoke stream around the whole perimeter of the mask, moving to within six inches of the respirator.
   D. If the person being tested has not had an involuntary response and/or detected the irritant smoke, proceed with the test exercises in section I.N of this appendix while the respirator seal is being continually challenged by the smoke.
   E. If the person being fit tested reports detecting the irritant smoke at any time, the test is failed. The person being retested must repeat the entire sensitivity check and fit test procedure.
   F. Each test subject passing the irritant smoke test without evidence of a response (involuntary cough, irritation) shall be given a second sensitivity screening check, with the smoke from the same smoke tube used during the fit test, once the respirator has been removed, to determine whether he/she still reacts to the smoke. Failure to evoke a response shall void the fit test.
   G. If a response is produced during this second sensitivity check, then the fit test is passed.