

Letter to the Editor

Dear Editor:

The paper, "Effective Self-Contained Breathing Apparatus in Fire Environments," published in JISRP (Vol. 1, Issue 4) is the first complete discussion of the subject. Mr. Held is right in saying NIOSH and older BM approval tests do not cover the special needs of firefighting. In the Canadian Navy, we allow people with beards to wear breathing apparatus. The only criterion is that individuals enter a room filled with CS riot gas (1000 ppm) for about 5-15 minutes, perform exercises, and suffer no distress from the gas. The Navy also allows the wearing of beards in firefighting. Cotton hoods give good protection to the ears and neck. I have my doubts about their protection if an OBA facepiece is leaking oxygen due to a beard. To my knowledge, I have heard of no incidents due to OBA failure in a fire. Metal or thermo setting plastics should be used for rigid parts. Glass (particularly tempered, laminated 2-layer safety glass) is the best for lenses. There is no problem with melting in heat, and no problem with deterioration in chemicals except hydrofluoric acid or caustic. The only material suitable for the membrane of a speaker diaphragm is saran TM vinylidene chloride. The nose cup alone will not prevent icing of lenses below -30 degrees F. This is due to condensation of moisture from invisible perspiration and surface of eyes. This icing can be prevented by using plastic lens-sealed to mask lens with rubber sealing rings such as used on the U.S. Army M-17 field protective mask. Freezing of exhalation valves can be prevented by covering the valve with cloth so that freezing occurs in the cloth.

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Publication Announcement

The ANSI **publication**, *American National Standard for Respiratory Protection—Respirator Use—Physical Qualifications for Personnel* (ANSI Z88.8-1984), **is now available from ANSI, Inc., 1430, Broadway, New York, NY 10018.**