

Dragon, Karen E. (CDC/NIOSH/EID)

From: [REDACTED]
Sent: Sunday, August 24, 2008 4:27 PM
To: NIOSH Docket Office (CDC)
Subject: 123 - Reevaluation of NIOSH limitations on and precaution for safe use of positive-pressure closed-circuit SCBA

Biomarine contends that we agree with comments made at the NIOSH meeting of August 20, 2008 in Pittsburgh contending that the use of CC-SCBA units in the presence of open-flame or high radiant heat should be allowed but with the following restrictions:

1. All users of CC-SCBA in applications of open-flame or high radiant heat shall be clean shaven and shall have conducted a quantitative fit test of the facepiece to be utilized. The presence of face seal leaks could serve to promote ignition of materials that normally will not burn under atmospheric conditions including Nomex and Kevlar. A proper face seal is essential to preventing accidental ignitions of materials that will readily ignite or materials not known to readily ignite.
2. All users of CC-SCBA in applications of open-flame or high radiant heat shall strictly follow the instructions and training provided by the manufacturer of the CC-SCBA and facepiece.
3. All users of CC-SCBA in applications of open-flame or high radiant heat shall not engage in direct immersion of such and shall take precautions to avoid such immersions whenever possible.
4. All users of CC-SCBA shall realize that special design considerations may be required to permit use of such apparatus in the presence of extreme open-flame or high radiant heat expose in order to protect the integrity of the CC-SCBA and associated components. Users shall consult with the manufacturer concerning the intended application of the CC-SCBA prior to use of such equipment to minimize the potential for injury or death.

Biomarine wishes to see the restriction of CC-SCBA unit use in the presence of open-flame or high radiant heat eased but does not warrant total removal of the restrictions as the use of pure oxygen in such situations present a real and plausible danger to the user and surrounding personnel. Biomarine realizes that many factors could come into play during fighting of a fire that can not be duplicated in any test including breaching of the facepiece seal. Thus Biomarine wishes to rescind the current restriction but not to the point that users feel free to rush into a severe condition with the feeling that total protection will be provided by the CC-SCBA. Total respiratory protection of the CC-SCBA can only provided as long as the face piece seal is maintained and the CC-SCBA itself is not exposed to conditions of extreme heat and flame that will eventually destroy the CC-SCBA itself.

It should be noted that it is Biomarine's belief that current applications of CC-SCBA units for fire-fighting have been restricted to mine rescue scenarios, Tunneling applications or high-rise buildings. In these cases the CC-SCBA may be utilized to fight the fire from a distance thus minimizing or eliminating the threat of oxygen propagated fires on the user. It is Biomarine's belief that these are the exact situations for which the revision of the NIOSH/MSHA stance is sought. In such situations Biomarine believes that the use of CC-SCBA units is fully justified and actually has a track record. Biomarine currently does not support the use of CC-SCBA units for the entering of burning buildings, completely engulfed applications or situations where the user could be trapped from egress by direct open flames or high radiant heat.

Biomarine has provided CC-SCBA to agencies outside of the United States for direct open-flame and extreme radiant heat applications. These units are quite different from units currently offered in the United States and involve the use of reflective technologies employed on the facepiece, breathing hoses and external housings of the CC-SCBA.