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To: NIOSH Docket Office (CDC)
Cc: Chen, Jihong (Jane) (CDC/NIOSH/EID) (CTR); Doyle, Glenn (CDC/NIOSH/EID)
Subject: 039-A - Subpart-Q-CC-SCBA-Concept Comments

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Comments

General Comment: Will Subpart Q replace Subpart H as the requirement for gaining NIOSH certification of closed-circuit respirators or will the respirator have to be tested against both subparts? If both subparts are required then I believe there will be great difficulty of any manufacturer to meet the breathing resistance requirements of both Subpart H and Subpart Q. The 0-2 inch requirement of Subpart H will result in negative pressures at the higher ventilation rates of Subpart Q.

The following comments are to specific sections of Subpart Q:

84.501(2)(b): Will NIOSH permit retro-fits to fielded CC-SCBA units to reduce the financial strain on users?

84.502(7): The specification of a Breathing Bag as a required component part should be revised to a Breathing Chamber or Breathing Bag. Biomarine designs do not employ the use of a breathing bag.

84.506(c): Will the use of contact lenses for corrective lenses be addressed in this standard? There have been questions in the field over using contact lenses.

84.507(a): Is ANSI Z87.1-2003 essentially the same type of standard as Federal Standard GGG-M-125d?

84.507(b): What is the test procedure for determining the VFS of 90 or greater?

84.513: Should be revised to Breathing Chamber or Breathing Bag

84.518(3): What are the test parameters for the human subject on a treadmill?

84.518(4): If the SCBA is being machine tested why is there a need for man testing and why only for units designated for use in coal mines? It has been Biomarine's experience in Europe that machine testing is much more severe than man testing. Man testing introduces delays in testing periods due to difficulties in obtaining and scheduling test subjects and doctors as well as inconsistency across test subjects. Does this requirement imply there will be a separate approval for SCBA designated for use in coal mines?

84.519(3): What are the test parameters for the human subject on a treadmill?

84.519(c): Need clarification of how test will begin with two exhalations and how this defines a unit's susceptibility to hypoxia.

Table 3: Assuming these rates are the machine testing portion only and will not be applied to human

subjects.

Table 5: Why is the Acceptable Excursion Requirement for temperature lower in Table 5 than in Table 1?

Table 6: If SCBA must also meet Subpart H then I believe all manufacturers will have great difficulty maintaining positive pressure at the 100 lpm ventilation rate.

84.527: Does this imply a separate approval for use in Fire-Fighting or will there simply be a notation on the certification label?

84.528(5): How will the capacity indicator be tested after flame engulfment? Will the SCBA remain on the test rig until the oxygen cylinder is consumed? May want to consider starting with a partially filled cylinder or allowing the cylinder to be dumped after flame engulfment to reduce the time to the capacity indicator alarm.

84.526: Will there be any specification as to where HD liquid drops will be applied to the SCAB during the challenge?