

August 5, 2003

NIOSH Docket Officer
Robert Taft Laboratories, M/S C34
4676 Columbia Parkway
Cincinnati, OH 45226

RE: CBRN Escape Respirator Standard Development Effort

Docket Officer:

Please find the following comments related to NIOSH's development of a standard for CBRN Escape Respirators below. These comments are based upon review of the June 30, 2003 draft titled "Concept for CBRN Escape Respirator Standard" and the review meeting held by NIOSH in Pittsburgh on June 25, 2003.

Section 6 (d): Use of human subjects for carbon dioxide testing as the criteria for pass/fail is not appropriate. NIOSH itself recognizes the shortcomings of human subject testing for carbon dioxide for SCBA. Please review sections 1.1.4 and 1.1.5 on page 2 of NIOSH Procedure No. RCT-ASR-STP-0139. NIOSH is clear in its statement that use of *human subject testing...* "makes it difficult to evaluate different types of apparatus and it *prevents accurate comparison* among those submitted for approval. As a result, a machine test method was developed, using human breathing characteristics, to enable comparison between breathing apparatus, *to give reproducible results, and to permit standardization on a procedure that is both accurate and reliable* (italics added for emphasis).

Section 6(i): For reasons enumerated in past submittals to the docket and in light of NIOSH's own statement above regarding human subject testing it would be appropriate for NIOSH to review its proposed requirements for LRPL value of 2000. NIOSH should recognize the inherent difficulties of repeat testing and obtaining repeat results. The state-of-art for human testing to establish a pass/fail based on 95% greater than some value does not provide reproducible results. NIOSH should consider using some modification to the 95% rule.

Please contact me if you have any questions.

Sincerely yours,

Richard Stein, Ph.D.