

Miller, Diane M. (CDC/NIOSH/EID)

From: lwilsonbcoa@aol.com
Sent: Friday, June 19, 2009 10:03 AM
To: NIOSH Docket Office (CDC)
Subject: RIN: 0920-AA10 and 42 CFR Pt. 84
Attachments: RIN0920-AA10_42CFR pt84.pdf

Please see attached letter and comments from the Bituminous Coal Operators' Association, Inc.'s on Proposed Rulemaking on Approved Tests and Standards for Closed-Circuit Escape Respirators.

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June 19, 2009

NIOSH Docket Office, Docket #005
Robert A. Taft Laboratories, MS-C34
4676 Columbia Parkway
Cincinnati, OH 45226

RE: RIN: 0920-AA10 and 42 CFR Part 84

The subject rule pertains primarily to the performance requirements for manufacturers of CCER's. Therefore, we defer to the manufacturers comments on these issues. The comments that have been submitted by the manufacturers seem to raise some serious questions as to the soundness of this rule. We would expect a through response to any and all questions before taking any further action on this rule.

As the purchasers and users of these devices, how does this rule benefit the miner? Will this new rule increase the size and/or weight of the units that the miner must wear? The requirement for a different type goggle than the one presently used may cause a packaging problem. Will these new requirements affect the training on the use and/or care of the units, given the extensive SCSR training that has been to miners for many years?

It appears that the wear-life and/or storage life of the presently approved and deployed SCSR's will not be able to go full term. Is this justifiable? What will happen during the transition from old to new when new mines are opened or existing mines expand the workforce and adequate numbers of new units are not available and the operator has to purchase existing units?

Variability in respirator performance between subjects is indeed substantial. Sources of variability are of two general types: the metabolic needs of the miner and the physical environment in which the respirator must be used. The miner's metabolic needs depend on his or her weight and physical condition. Important features of the environment are the distance the miner must travel in order to reach safety and constraints on the miner's movement such as the seam height and fires or roof falls that would require additional exertion.

What this proposed rule fails to do is distill information about variability in performance to practical information that miners can use in deciding how to use a self-contained self-rescuer and thereby, to save their life in event of an emergency. The problem posed by variability is not only how to design a test protocol that would measure variability and its determinants, but rather what practical information a miner must have in order to develop a strategy for survival. When confronted with a fire underground, a miner needs to know how long a respirator will provide him or her with oxygen under the circumstances presented by the mine and its hazards.

We recognize that the criterion, "good for one hour," is misleading, at best. Consequently, we suggest extracting some common sense and useful information for miners and then to design a test protocol that would provide miners with that information.

We suggest that the largest single source of variability is the miner's metabolic load. The biggest contributors to the metabolic load are the miner's weight and how fast he or she has to move and what physical limitations (such as mine height, fire, roof falls, etc.) exist that would make travel more strenuous. A miner's physical condition is important but difficult to measure and awkward to include in any practical information. With this information, respirators can be tested to meet the following common sense criteria with useful information that can be conveyed as follows:

"This respirator will provide enough oxygen for a 200 pound miner to travel by foot approximately three miles in one hour. This amount of time will be reduced if he or she weighs more than 200 pounds or if travel is difficult."

(Normal walking speed is about 3 mph.) This language takes account of the major contributors to the metabolic load – miner's weight, distance to travel, and means of travel – and includes sufficient information to inform the miner about the respirator's limitations. It includes common sense terms: weight, distance, and time and their interactions. The purpose of the test protocol should be to provide miners with such information. As it is proposed, it seems more designed to document a respirator's structure and function. Such information is useful and essential but it does not, in the final analysis, provide miners with the information they need that would save their lives: how much time does the respirator provide and under what conditions.

Incidentally, we see little gained by changing the designation for what is now called "Self-Contained Self-Rescuer (SCSR)" to "Closed-Circuit Escape Respirator (CCER). The original name is based on the respirator's purpose and as a result is self-explanatory. It is, moreover, well known and common throughout the mining industry.

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The proposed name is based on its structural properties (i.e., "closed circuit"), which is of interest to engineers but of secondary concern to miners. Why change?

The Coal Mining Industry has been using SCSRs (CCERs) for over thirty years. As a consequence the industry has extensive knowledge of the unique deployment required for SCSRs in coal mines as well as the use and maintenance of existing products. Care must be taken not to compromise safety in U.S. Coal Mines through the layering on of additional requirements for these devices.

Sincerely,

A handwritten signature in cursive script, appearing to read "David M. Young".

David M. Young
President, BCOA