

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

From: Gold, Deborah@DIR [DGold@dir.ca.gov]
Sent: Monday, January 31, 2011 3:23 PM
To: NIOSH Docket Office (CDC)
Cc: Welsh, Len@DIR; Horowitz, Mike@DIR; Smith, Steve C.@DIR
Subject: 147 - Reevaluation of the NIOSH policy on emergency escape support breathing system or buddy-breather device used with open-circuit self-contained breathing apparatus
Attachments: Buddy Breathing -- Cal-OSHA comments 1-28-11.pdf

Enclosed are comments from Cal/OSHA regarding Docket Number 147. Thank you for your consideration.

Deborah Gold

Deborah Gold, MPH, CIH
Senior Safety Engineer
Cal/OSHA Research and Standards Health Unit
(510)286-7006

DEPARTMENT OF INDUSTRIAL RELATIONS

DIVISION OF OCCUPATIONAL SAFETY AND HEALTH

1515 CLAY STREET, SUITE 1901

OAKLAND, CA 94612

(510) 286-7000 FAX: (510) 286-7037

ADDRESS REPLY TO
PO BOX 420603
SAN FRANCISCO 94142-0603

January 28, 2011

To: NIOSH Docket Office

Subject: NIOSH Docket Number 147, reevaluation of the NIOSH policy on emergency escape support breathing system or "buddy-breather" device used with open-circuit self-contained breathing apparatus

The California Department of Industrial Relations, Division of Occupational Safety and Health (Cal/OSHA), operates a state plan in accordance with the Occupational Safety and Health Act of 1970 and the California Labor Code. For over 30 years Cal/OSHA has been addressing respiratory protection for employee exposures to airborne hazards, with particular emphasis on respiratory protection for firefighters, including conducting numerous public advisory committees on respiratory protection for firefighters in the late 1970s and early 1980s.

Cal/OSHA's regulation regarding buddy breathing applies to local and state fire departments, as well as private fire brigades. The regulation, which is similar to 29 CFR 1910.156 (f)(1)(iii), states:

8 CCR 3409(a)(5) Buddy-Breathing. Approved self-contained breathing apparatus may be equipped with either a "buddy-breathing" device or a quick disconnect valve, even if these devices are not certified by NIOSH. If these accessories are used, they shall not cause damage to the apparatus, or obstruct the normal operation of the apparatus.

Use of respiratory protective equipment not approved by NIOSH may compromise the effectiveness of respiratory protection, which is of particular concern with emergency response personnel for whom respiratory protection is often the only protective measure available. Cal/OSHA therefore welcomes the opportunity presented by the NIOSH meeting to take a renewed look at buddy breathing and its status in firefighting as practiced today. Several Cal/OSHA staff participated via the web in the December NIOSH NPPTL meeting.

A number of observations about the practice of buddy breathing by fire protective services emerged from the presentations, discussions and comments submitted to the NIOSH December meeting:

1. The survey that the NFPA-1981 Subcommittee on Buddy Breathing Systems presented at the meeting found that buddy breathing is a procedure that is anticipated and trained for by a high percentage of fire services, but is rarely resorted to in real emergencies.

2. Technological changes in the capabilities and safety of SCBAs has made this equipment physically amenable to buddy breathing applications. Though the manner in which buddy breathing is accomplished differs between manufacturers, the mechanisms utilized are technically far more advanced compared to the situation in the early 1980's. For example, one concern discussed in a Cal/OSHA firefighter SCBA advisory committee held many years ago was that buddy breathing could dangerously require the rescuer to remove the respirator face piece to share it with the firefighter needing rescue. Modern SCBAs include features, such as quick release fittings, auxiliary valves, and hose attachments specifically designed for buddy breathing, which may reduce the likelihood of the potential disastrous consequences once inherent in buddy breathing.
3. Changes in firefighting practice, particularly the use of Firefighter Assist and Search Teams (FAST) or Rapid Intervention Teams (RIT), have changed the potential role of buddy breathing. Under these protocols, buddy breathing is used as a short duration "stabilize in place" procedure while the designated team, with its auxiliary air bottles and other equipment, is called for via radio. Such changes in how buddy breathing is practiced reduce the likelihood of the rescuer becoming a second victim.
4. Thus far, no record has been found of injury or death due to use of buddy breathing. No information was submitted at the NIOSH meeting documenting adverse outcomes from the practice of buddy breathing in recent years. In reviewing our most current compilation of records [1990-2007], Cal/OSHA has found no citations of 8CCR 3904(a)(5), and is not otherwise aware of any negative outcomes in California arising from buddy breathing.

While Cal/OSHA does not disagree with those commenters in the NIOSH process who have pointed out that adverse outcomes from the practice of buddy breathing are still possible, we believe that the changes in technology and practice justify NIOSH revisiting this issue. This would be consistent with its mandate to approve respiratory protective devices, as well as with the work NIOSH has done in the past decade on protecting the health and safety of emergency responders.

If this review determines that modern buddy-breathing systems present an unacceptable and unjustified risk to the user, NIOSH should clearly state that the addition of those systems is contrary to the NIOSH approval of the device. On the other hand, given the widespread use of these systems, if NIOSH can determine criteria for these systems that would protect the user and increase protection for emergency response personnel, then NIOSH should adopt criteria that will be incorporated into the approval process for any SCBA that either incorporates a buddy breathing system or that permits buddy breathing systems to be attached. Further, NIOSH should require that any buddy breathing protocols be incorporated into the documentation for the respirator, and therefore subject to NIOSH review.

Cal/OSHA agrees with those commenters who stressed that those fire agencies that choose to allow buddy breathing must have strong training programs and comprehensive written policies regarding the practice. Cal/OSHA also believes that buddy breathing should only be

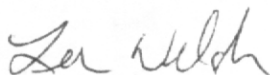
used as a last resort in emergency situations until more comprehensive aspects of rescue protocols can be implemented.

Today, numerous fire services train and plan to use buddy breathing as a last resort. Federal and California OSHA regulations acknowledge this reality by conditionally allowing the practice. Of continuing concern to Cal/OSHA is that buddy breathing systems of SCBAs are not evaluated by NIOSH for adequacy of construction, effectiveness, or potential design-related hazards.

Cal/OSHA believes it would be appropriate and beneficial for NIOSH to develop an evaluation program for SCBA buddy breathing systems. Such a program should address both the mechanical construction of the equipment features and the actual functionality and effectiveness of the system under realistic usage scenarios.

Thank you for your attention. If you have any questions regarding these comments, please contact Mike Horowitz at (510) 286-7009 or Len Welsh at (510) 286-7000.

Sincerely,



Len Welsh
Chief

ALW/mh