

**U.S. Department of Labor**

Assistant Secretary for  
Occupational Safety and Health  
Washington, D.C. 20210



FEB 10 2004

Mr. Edward Grund, PE, CSP  
Chair, Z117 Accredited Standards Committee  
1800 E. Oakton Street  
Des Plaines, IL 60018

Dear Mr. Grund:

Thank you for your December 15, 2003 letter concerning the language contained in the current Permit-Required Confined Spaces (PRCS) standard, 29 CFR 1910.146(k)(3), which provides for retrieval system requirements including, as provided in (k)(3)(i), that "[e]ach authorized entrant shall use a chest or full-body harness". You indicated in your letter that allowing a chest harness to be used for rescue purposes is a significant safety issue that must be addressed. As such, you requested the Occupational Safety and Health Administration (OSHA) to issue an interpretation that makes it clear that "the harness used for entry must meet all applicable fall protection requirements if a fall hazard exists at any time during the entry," or that "the provisions of (k)(3) do not relieve the employer of responsibility to provide and ensure the employee uses a harness suitable for fall protection purposes where a fall hazard exists at any time during the entry." Additionally, you requested that OSHA change the regulation to eliminate the acceptance of a chest harness as part of a rescue procedure.

Your committees, American National Standards Institute (ANSI) Z117 and Z359, believe that the use of chest harnesses alone for rescue purposes is unacceptable for the following reasons:

1. The entrant would have to be conscious to be retrieved in order to hold his/her arms together to prevent the chest harness from slipping over their head.
2. Without a seat harness to connect to, the chest harness can be pulled off of the employee fairly easily.
3. If the entrant sustained any injury to his or her hand, forearm, upper arm or shoulder on either side of the body, the chest harness could not be held in place and would most likely cause the harness to roll off of the entrant.

4. Your membership has taken the position that they have never seen a chest harness designed for extraction purposes outside of water rescue. If a retrieval line failed and the employee were to be caught on an additional safety line attached to the chest, recent studies have shown that severe injuries could occur.
5. The ANSI Z359.1 Standard on Personal Fall Arrest Systems, Subsystems and Components allows the use of a full-body harness, not merely a chest harness.
6. Retrieval using a chest harness alone, as opposed to a full body harness, would be extremely uncomfortable and could exacerbate body trunk injuries.

When OSHA first issued the proposed standard for PRCS on June 5, 1989, the retrieval line definition included the phrase "chest-waist or full-body harness." During the rulemaking process, OSHA received several comments, including comments on rescue equipment. Some comments, for example, suggested that the rescue equipment include lines that "are attached to the entrant via a full body harness or wristlets," while others recommended that "the standard require the use of a full body harness only, unless the special geometry is such that only wristlets or anklets can be used effectively." OSHA did not receive substantial comments during the rulemaking that chest harnesses alone should not be allowed under the PRCS standard. The final standard, allowing the use of "a chest or full body harness" in retrieval systems, does not rule out the use of chest harnesses for retrieval equipment.

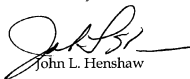
As you know, OSHA has relied heavily on the expertise of the ANSI Z117 committee as well other industry experts in finalizing the 1910.146 standard in several areas. We agree with your suggestion that, in most circumstances, the greatest degree of safety for retrieval systems is achieved through the use of a full body harness as opposed to a chest harness. If an employer has reason to believe that a chest harness cannot provide for a safe rescue from a permit space, the use of a chest harness would not be appropriate.

Currently, a revision to 1910.146 is not on OSHA's Regulatory Agenda. We will consider issuing a safety and health information bulletin (SHIB), which would be posted on our web site. The purpose of the SHIB would be to warn employers of the

potential hazards involving chest harnesses when used for rescue purposes from permit spaces. We would seek your valuable input in the development of the SHIB mentioned above.

Thank you for your interest in occupational safety and health. If you have any questions, please do not hesitate to contact the Office of General Industry Enforcement at 202-693-1850.

Sincerely,



John L. Henshaw