

**INTERPRETATION IC 15-1992-7 OF  
ANSI/ASHRAE STANDARD 15-1992  
SAFETY CODE FOR MECHANICAL REFRIGERATION**

August 30, 1993

**Request from:** Timothy E. Roberts, CIH, CSP, Respirator Program Administrator, Industrial Hygiene Group, Lawrence Livermore National Laboratory, University of California, P.O. Box 808, Livermore, CA 94550

**References.** This request refers to Standard 15-1992, Subsection 13.7 Self Contained Breathing Apparatus (SCBA).

**Background.** Mr. Roberts' letter states that LLL is upgrading several mechanical rooms to substitute alternative refrigerants such as R 123. Under DOE Order 6430.1 this work must follow Standard 15. The letter opines that SCBA equipment designed and approved by NIOSH for entry into Immediately Dangerous to Life and Health (IDLH) conditions is the minimum requirement.

**Question 1.** Is the purpose of the equipment specified in 13.7 for the rescue of an affected individual within the room?

**Answer 1.** Yes

**Comment.** An additional purpose is to shut valves or make emergency repairs to prevent further leakage of refrigerant.

**Question 2.** Does this SCBA have to be approved by NIOSH for entry into IDLH conditions as a minimum?

**Answer 2.** Yes

**Question 3.** Does having an Emergency Response Team and Fire Department on site meet the 13.7 requirement for having one or more SBCAs outside the machinery room?

**Answer 3.** No

**Comment.** An emergency response team and a fire department on site may not have or respond with self-contained breathing apparatus suitable for refrigerant R-123. The response team may not arrive promptly because of higher priority assignments, weather conditions or an accident enroute. The emergency response team or fire department may not be trained in emergency shutdown of refrigeration equipment as presumed by the comment following Answer No. 1. Thus, reliance on assumed capabilities is not equivalent to providing self-contained breathing apparatus on or adjacent to the refrigeration machinery room where it may also be employed by the operating personnel.