



Technical Bulletin

by The Purification X-perts™ at X-ZAM® LABS

NFPA 1500 Recommendation for Fire Department Occupational Safety & Health

“Use Only a Skilled and Accredited Testing Lab”

As cited on page 16 of the NFPA 1500 handbook, dated August 14th, 1992:

•**5-3.6*** The fire department shall adopt and maintain a respiratory protection program that addresses selection, inspection, use, maintenance, training, and air quality testing. Members shall be tested and certified in the safe and proper use of SCBA at least annually.

•**5-3.7** Compressed gaseous air in the SCBA cylinder shall meet the requirements of ANSI/CGA G7.1, *Commodity Specification for Air*, with a minimum air quality of Grade D, as well as meeting a dew point level of -65°F (-54°C) or dryer (24 ppm v/v or less), and a maximum particulate level of 5 mg/m³ air.

•**5-3.7.1*** When the fire department purchases compressed breathing air in a vendor supplied cylinder, the fire department shall require the vendor to provide certification and documentation that the breathing air has been tested and that it meets the requirements of 5-3.7 of this section. The vendor shall provide documentation to demonstrate that the laboratory is accredited by the American Industrial Hygiene Association, the American Association for Laboratory Accreditation, or the National Voluntary Laboratory Accreditation Program.

•**5-3.7.2** When the fire department makes its own breathing air or transfers purchased breathing air from vendor cylinders into other storage cylinders, the air quality from compressors, cascade system cylinders, storage receivers, and other such breathing air manufacturing or storage equipment used for filling SCBA cylinders shall be tested at least every three months by a laboratory accredited by the American Industrial Hygiene Association, the American Association for Laboratory Accreditation, or the National Voluntary Laboratory Accreditation Program to certify that the breathing air meets the requirements of 5-3.7 of this section. Laboratories shall be required to notify the fire department immediately of air not meeting the requirements of 5-3.7 of this section.

Three Cases of Suspected Carbon Monoxide Asphyxiation

Illinois-July/August 97

40 year old volunteer fire chief asphyxiated by carbon monoxide and carbon dioxide fumes while saving a salvage company worker. Autopsy revealed a carbon monoxide level of 50.4% percent. (*Information retrieved from the NFPA Journal, July/August 1997*)

Pinellas County, FL- July 97

4th of July weekend, 42 year old diver, Garry Tuomey, died from air contaminated with Carbon Monoxide (CO). According to the medical examiners, the remaining air in his tank tested with high levels of Carbon Monoxide. Tragically, Tuomey drowned because he was sickened from the deadly gas. (*Information retrieved from local sources*)

Key West, FL-April 94

Following the diving death of a tourist here, the Monroe County Medical Examiner's Office determined that elevated levels of carbon monoxide (CO) in the blood contributed to the fatality. Subsequent testing of the tanks the diver used show CO levels as high as 2,600 parts per million...more than twice what is considered lethal and more than 260 times the level recommended by the Compressed Gas Association for Level E breathing air. (*by Cathy Cush, Reprinted with permission from Divers Alert Network (DAN)-Alert Diver, September/October 1995*)



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