

N.J. Dept. of Health.

765
a c

The State Department of Health of the State of New Jersey, pursuant to authority vested in it under the provisions of R.S. 24:2-1, hereby establishes the following rules and regulations governing Compressed Air Used in Self Contained Underwater Breathing Apparatus (SCUBA) to become effective April 1, 1964.



Roscoe P. Kandle, M.D.
State Commissioner of Health

Filed with Secretary of State: February 27, 1964

REGULATIONS GOVERNING COMPRESSED AIR USED IN SELF
CONTAINED UNDERWATER BREATHING APPARATUS (SCUBA)

Components of compressed air shall not exceed the following limits:

CARBON MONOXIDE	10 parts/million (PPM)	0.001%
CARBON DIOXIDE	1000 PPM	0.1%
OIL	0.02mg/liter	
WATER	Saturation	
ODOR	Free from objectionable odors	
OTHER	Contaminants deleterious to health shall not be present	

SS

NJ

H

COPY NO. 1
REGULATION SHELF

NJ/KA8
H4/54
1964

copy 1

SCUBA RECOMMENDATIONS

The following recommendations are primarily directed to purveyors of SCUBA air to protect public health.

I. Compressed Air Containers

No compressed air container used for self contained underwater breathing apparatus should be filled or refilled unless it shows evidence of a recent I.C.C. hydrostatic test.

II. Preparation of Compressed Air

Uncontaminated air may be compressed by means of suitable equipment and the compressed air should not exceed the limits set forth in the regulations. The following sampling, testing and test procedures may be used to determine the quantitative composition of the compressed air.

A. Carbon Monoxide

Determination of carbon monoxide may be made by using:

1. Mine Safety Appliance Detector Co., Carbon Monoxide Tester No. DS-47133;
2. U. S. Safety Services Detector, model 300 "Saf-Co-Meter";
3. Kitagawa Precision Gas Detection Unico Model No. 400, with the cartridge No. 106A; or its equivalents;
4. Any other device or method acceptable to the New Jersey State Department of Health.

B. Carbon Dioxide

Determination of carbon dioxide may be made by using:

1. Kitagawa Precision Gas Detection Unico Model No. 400;
2. Davis Emergency Co., Gas Detector Kit;
3. Any other device or method acceptable to the New Jersey State Department of Health.

C. Oil

Determination of oil may be made by passing 100 liters of air at atmospheric pressures and room temperature through a No. 41 Whatman Filter and measuring the increase in weight over the original weight of the filter. Air contamination with 0.02 mg. of oil per liter of air will add 2 mg. to the weight of the filter. Other forms of particulate matter may be similarly assayed. Assays may be made by this or by any other device or method acceptable to the New Jersey State Department of Health.

D. Water

Compressed air may be saturated with water vapor but should not contain water in separated form. This may be determined by using:

1. Dew point equipment as manufactured by Mine Safety Appliance Co., Foxboro Co., or American Instrument Co.
2. Any other device or method acceptable to the New Jersey State Department of Health.

E. Odor

Compressed air may be tested for odor by cracking the valve and smelling the escaping air. Filled cylinders having any objectionable odors should be rejected.

III. Equipment

Equipment for compressing air should be of suitable design, size, construction and location to facilitate maintenance and operation for its intended purpose in a manner that is orderly and clean. Such equipment should be

- A. So constructed that any surface that comes in contact with the air be non-reactive, non-additive, or non-absorptive to the finished product,
- B. so constructed that any substances required for its operation such as lubricants or coolants, may be employed without hazard or without becoming additive to the finished compressed air,
- C. so constructed to facilitate maintenance to assure reliability of the finished product within the limits as set forth in the Regulation.