- (ii) Contamination which is likely to affect the purity of the breathing mixture delivered to the diver; and
- (4) The open ends of each breathing supply hose are taped, capped, or plugged when not in use.
- (b) To meet the requirements of paragraph (a)(3) of this section, each breathing supply hose must be—
- (1) Carefully inspected before being shipped to the dive location;
- (2) Visually checked during daily operation; and
- (3) Checked for noxious or offensive odor before each diving operation.

## §197.458 Gages and timekeeping devices.

The diving supervisor shall insure that—

- (a) Each depth gage and timekeeping device is tested or calibrated against a master reference gage or time-keeping device every 6 months;
- (b) A depth gage is tested when a discrepancy exists in a depth gage reading greater than 2 percent of full scale between any two gages of similar range and calibration;
- (c) A timekeeping device is tested when a discrepancy exists in a timekeeping device reading greater than one-quarter of a minute in a 4-hour period between any two timekeeping devices; and
- (d) Each depth gage and timekeeping device is inspected before diving operations are begun.

#### §197.460 Diving equipment.

The diving supervisor shall insure that the diving equipment designated for use in a dive under §197.346 is inspected before each dive.

# § 197.462 Pressure vessels and pressure piping.

- (a) The diving supervisor shall ensure that each pressure vessel, including each volume tank, cylinder and PVHO, and each pressure piping system is examined and tested as required by this section and after any repair, modification or alteration to determine that they are in satisfactory condition and fit for the service intended.
- (b) Pressure vessels and pressure piping shall be examined annually for mechanical damage or deterioration. Any

defect that may impair the safety of the pressure vessel or piping shall be repaired and pressure tested to the satisfaction of the Officer in Charge, Marine Inspection.

- (c) The following tests shall be conducted at least every three years:
- (1) All piping permanently installed on a PVHO shall be pressure tested.
- (2) PVHOs subject to internal pressure shall be leak tested at the maximum allowable working pressure using the breathing mixture normally used in service.
- (3) Equivalent nondestructive testing may be conducted in lieu of pressure testing. Proposals to use non-destructive testing in lieu of pressure testing shall be submitted to the Officer in Charge, Marine Inspection.
- (d) Unless otherwise noted, pressure tests conducted in accordance with this section shall be either hydrostatic tests or pneumatic tests.
- (1) When a hydrostatic test is conducted on a pressure vessel, the test pressure shall be no less than 1.25 times the maximum allowable working pressure.
- (2) When a pneumatic test is conducted on a pressure vessel, the test pressure shall be the maximum allowable working pressure stamped on the nameplate.
- (3) When a pneumatic test is conducted on piping, the test pressure shall be no less than 90 percent of the setting of the relief device.
- (4) Pressure tests shall be conducted only after suitable precautions are taken to protect personnel and equipment.
- (5) When pressure tests are conducted on pressure vessels or pressure piping, the test pressure shall be maintained for a period of time sufficient to allow examination of all joints, connections and high stress areas.

 $[{\rm CGD}~95\text{--}028,\,62~{\rm FR}~51220,\,{\rm Sept.}~30,\,1997]$ 

### RECORDS

### § 197.480 Logbooks.

- (a) The person-in-charge of a vessel or facility, that is required by 46 U.S.C. 11301 to have an official logbook, shall maintain the logbook on form CG-706.
- (b) The person-in-charge of a vessel or facility not required by 46 U.S.C.