

fire-extinguishing agent shall be subjected to a hydrostatic test of 1½ times the maximum allowable working pressure in the tenth year of the installation and at ten-year intervals thereafter. After the test, the tank should be drained and an internal examination made. Parts of the jacket and lagging on the underside of the tank designated by the marine inspector must be removed at the time of the test so the marine inspector may determine the external condition of the tank.

(h) *Pneumatic tests.* (1) Pressure vessels that were pneumatically tested before being stamped with the Coast Guard Symbol must be examined internally twice every 5 years and examined externally at each Inspection for Certification. No more than 3 years may elapse between any external examination and its immediate predecessor.

(2) For tanks whose design precludes a thorough internal or external examination, the thickness must be determined by a nondestructive method acceptable to the Officer in Charge, Marine Inspection.

(3) If (due to the product carried) your vessel's inspection intervals are prescribed in subchapter D (Tank Vessels), subchapter I (Cargo and Miscellaneous Vessels), or subchapter I-A (Mobile Offshore Drilling Units), you must comply with the pneumatic test regulations there, instead of the ones in this section.

(i) *Safety or relief valves on pressure vessels.* (1) If your vessel's Certificate of Inspection is renewed annually, the marine inspector must check the settings of the safety or relief valves on all pressure vessels, except cargo tanks, at each inspection for certification.

(2) If your vessel's Certificate of Inspection is renewed less often than annually, the marine inspector must check the settings of the safety or relief valves on all pressure vessels, except cargo tanks, twice every 5 years. No more than 3 years may elapse between any check and its immediate predecessor.

(3) Cargo tank safety or relief valves must be checked at the interval required in subchapter D (Tank Vessels)

or subchapter I (Cargo and Miscellaneous Vessels) of this chapter.

[CGFR 68-82, 33 FR 18890, Dec. 18, 1968, as amended by CGFR 69-127, 35 FR 9980, June 17, 1970; CGD 73-251, 43 FR 56801, Dec. 4, 1978; CGD 77-147, 47 FR 21811, May 20, 1982; CGD 86-033, 53 FR 36024, Sept. 16, 1988; CGD 83-043, 60 FR 24782, May 10, 1995; CGD 95-028, 62 FR 51202, Sept. 30, 1997; USCG-1999-6216, 64 FR 53225, Oct. 1, 1999; USCG-1999-4976, 65 FR 6500, Feb. 9, 2000]

### Subpart 61.15—Periodic Tests of Piping Systems

#### § 61.15-1 Scope.

In conducting hydrostatic tests on piping, the required test pressure shall be maintained for a sufficient length of time to permit an inspection to be made of all joints and connections. The setting of the relief valve or safety valve will be considered as establishing the maximum allowable working pressure of the system.

[CGFR 68-82, 33 FR 18890, Dec. 18, 1968, as amended by CGD 95-012, 60 FR 48050, Sept. 18, 1995]

#### § 61.15-5 Steam piping.

(a) Main steam piping shall be subjected to a hydrostatic test equal to 1¼ times the maximum allowable working pressure at the same periods prescribed for boilers in § 61.05-10. The hydrostatic test shall be applied from the boiler drum to the throttle valve. If the covering of the piping is not removed, the test pressure shall be maintained on the piping for a period of ten minutes. If any evidence of moisture or leakage is detected, the covering shall be removed and the piping thoroughly examined.

(b) All steam piping subject to pressure from the main boiler should be subjected to a hydrostatic test at a pressure of 1¼ times the maximum allowable working pressure of the boiler after every five years of service except as otherwise provided for in paragraph (a) of this section. Unless the covering of the piping is removed, the test pressure must be maintained on the piping for ten minutes. If any evidence of moisture or leakage is detected, the covering should be removed and the piping thoroughly examined. No piping

## § 61.15-10

## 46 CFR Ch. I (10-1-10 Edition)

with a nominal size of 3 inches or less need be hydrostatically tested.

(c) The setting of safety and relief valves installed in piping systems shall be checked by the marine inspector at each inspection for certification for vessels whose Certificates of Inspection are renewed each year. For other vessels, the setting must be checked twice within any 5-year period, and no more than 3 years may elapse between any check and its immediate predecessor.

[CGFR 68-82, 33 FR 18890, Dec. 18, 1968, as amended by CGD 73-248, 39 FR 30839, Aug. 26, 1974; CGD 83-043, 60 FR 24782, May 10, 1995; USCG-1999-4976, 65 FR 6500, Feb. 9, 2000]

### § 61.15-10 Liquefied-petroleum-gas piping for heating and cooking.

(a) Leak tests as described in paragraph (b) of this section shall be conducted at least once each month, at each inspection for certification, and at each periodic inspection. The tests required at monthly intervals shall be conducted by an appropriately credentialed officer of the vessel or qualified personnel acceptable to the Officer in Charge, Marine Inspection. The owner, master, or person in charge of the vessel shall keep records of such tests showing the dates when performed and the name(s) of the person(s) and/or company conducting the tests. Such records shall be made available to the marine inspector upon request and shall be kept for the period of validity of the vessel's current certificate of inspection. Where practicable, these records should be kept in or with the vessel's logbook.

(b) Test the system for leakage in accordance with the following procedure: With the appliance valve closed, the master shutoff valve on the appliance open, and one cylinder valve open, note pressure in gauge.

[CGFR 68-82, 33 FR 18890, Dec. 18, 1968, as amended by USCG-1999-4976, 65 FR 6500, Feb. 9, 2000; USCG-2003-16630, 73 FR 65189, Oct. 31, 2008; USCG-2006-24371, 74 FR 11265, Mar. 16, 2009]

### § 61.15-12 Nonmetallic expansion joints.

(a) Nonmetallic expansion joints must be examined externally at each inspection for certification and periodic inspection for signs of excessive

wear, fatigue, deterioration, physical damage, misalignment, improper flange-to-flange spacing, and leakage. A complete internal examination must be conducted when an external examination reveals excessive wear or other signs of deterioration or damage.

(b) A nonmetallic expansion joint must be replaced 10 years after it has been placed into service if it is located in a system which penetrates the side of the vessel and both the penetration and the nonmetallic expansion joint are located below the deepest load waterline. The Officer in Charge, Marine Inspection may grant an extension of the ten year replacement to coincide with the vessel's next drydocking.

[CGD 77-140, 54 FR 40615, Oct. 2, 1989, as amended by CGD 95-028, 62 FR 51202, Sept. 30, 1997; USCG-1999-4976, 65 FR 6501, Feb. 9, 2000]

### § 61.15-15 Other piping.

(a) All other piping systems shall be examined under working conditions as required by the marine inspector.

## Subpart 61.20—Periodic Tests of Machinery and Equipment

### § 61.20-1 Steering gear.

(a) The marine inspector must inspect the steering gear at each inspection for certification for vessels whose Certificate of Inspections are renewed each year. For other vessels, the marine inspector must inspect the steering gear twice within a 5-year period, and no more than 3 years may elapse between any inspection and its immediate predecessor. The marine inspector may inspect the steering gear more often, if necessary.

(b) All devices employed in the change-over from automatic to manual operation shall be examined and tested.

[CGFR 68-82, 33 FR 18890, Dec. 18, 1968, as amended by USCG-1999-4976, 65 FR 6501, Feb. 9, 2000]

### § 61.20-3 Main and auxiliary machinery and associated equipment, including fluid control systems.

(a) At each inspection for certification and periodic inspection the marine inspector shall conduct such tests and inspections of the main propulsion