§ 61.10–5 Pressure vessels in service.

(a) Basic requirements. Each pressure vessel must be examined or tested every 5 years. The extent of the test or examination should be that necessary to determine that the pressure vessel’s condition is satisfactory and that the pressure vessel is fit for the service intended.

(b) Internal and external tests and inspections. (1) Each pressure vessel listed on the Certificate of Inspection must be thoroughly examined externally every 5 years.

(2) In addition, each pressure vessel listed on the Certificate of Inspection that is fitted with a manhole or other inspection opening so it can be satisfactorily examined internally, must be opened for internal examination every 5 years.

(3) No pressure vessel need be hydrostatically tested except when a defect is found that, in the marine inspector’s opinion, may affect the safety of the pressure vessel. In this case, the pressure vessel should be hydrostatically tested at a pressure of 1 ½ times the maximum allowable working pressure.

(c) Special purpose vessels. (1) If your vessel’s Certificate of Inspection is renewed annually, the following must be examined under operating conditions at each inspection for certification: all tubular heat exchangers, hydraulic accumulators, and all pressure vessels used in refrigeration service.

(2) If your vessel’s Certificate of Inspection is renewed less often than annually, the following must be examined under operating conditions twice every 5 years: all tubular heat exchangers, hydraulic accumulators, and all pressure vessels used in refrigeration service.

(3) No more than 3 years may elapse between any examination and its immediate predecessor.

(d) Hydrostatic tests under pressure. Each pressure vessel, other than one exempted by this section, must be subjected to a hydrostatic test at a pressure of 1 ½ times the maximum allowable working pressure twice within any five-year period, except that no more than three years may elapse between any test and its immediate predecessor.

(e) Exemptions from hydrostatic tests. The following pressure vessels will not normally be subjected to a hydrostatic test:

(1) Tubular heat exchangers.

(2) Pressure vessels used in refrigeration service.

(3) Hydraulic accumulators.

(4) Pressure vessels which have been satisfactorily examined internally by a marine inspector and in which no defects have been found which impair the safety of the pressure vessel.
§ 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.


Subpart 61.15—Periodic Tests of Piping Systems

§ 61.15–5 Steam piping.

(a) Main steam piping shall be subjected to a hydrostatic test equal to 1 1/4 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.