§ 56.50–10 Special gauge requirements.

(a) Where pressure-reducing valves are employed, a pressure gauge must be provided on the low-pressure side of the reducing station.

(b) Fuel oil service, fire, cargo and fuel oil transfer and boiler feed pumps must be provided with a pressure gage on the discharge side of the pump. Additional information pertaining to fire pumps is in § 34.10–5 of subchapter D (Tank Vessels), § 76.10–5 of subchapter H (Passenger Vessels), § 95.10–5 of subchapter I (Cargo and Miscellaneous Vessels), and § 108.417 of subchapter IA (Mobile Offshore Drilling Units) of this chapter.

§ 56.50–15 Steam and exhaust piping.

(a) The design pressures of the steam piping connected to the boiler drum or to the superheater inlet header shall not be less than the lowest pressure setting of any drum safety valve. The value of allowable stress for the material shall not exceed that corresponding to the saturated steam temperature at drum pressure and shall be selected as described in §56.07–10(e).

(b) Main superheater outlet piping systems, desuperheated piping systems, and other auxiliary superheated piping systems led directly from the boiler superheater shall be designed for a pressure not less than the pressure at which the superheater safety valve is set. In the case of a superheated safety valve which is drum pilot actuated, the design pressure of such piping systems shall not be less than the pressure setting of the actuator valve on the drum. Where it can be shown that the limitations set forth in 102.2.4 of ASME B31.1 (incorporated by reference; see 46 CFR 56.01–2) will not be exceeded, the design pressure of such piping systems may be reduced but shall not be less than the pressure setting of the actuator valve on the drum less the pressure drop through the superheater, including associated piping and a control desuperheater if fitted, at the normal rated operating condition. In both cases, the value of allowable stress shall be selected using a temperature not less than that of the steam at the superheater outlet at the normal rated operating conditions in accordance with §56.07–10(e). Valves and fittings shall be selected for the above temperature and pressure from the accepted standards in 46 CFR 56.60–1, Table 56.60–1(b), using the pressure-temperature rating in the standard.

(c) Steam stop valves in sizes exceeding 6 inches shall be fitted with bypasses for heating the line and equalizing the pressure before the valve is opened.

(d) In multiple boiler installations each boiler’s main, auxiliary and desuperheated steam lines shall be fitted with two valves, one a stop valve and one a stop check valve.
§ 56.50–25  Safety and relief valve escape piping.

(a) Escape piping from unfired steam generator, boiler, and superheater safety valves shall have an area of not less than that of the combined areas of the outlets of all valves discharging there-to and shall be led as near vertically as practicable to the atmosphere.

(b) Expansion joints or flexible pipe connections shall be fitted in escape piping. The piping shall be adequately supported and installed so that no

§ 56.50–20  Pressure relief piping.

(a) General. There must be no intervening stop valves between the vessel or piping system being protected and its protective device or devices, except as specifically provided for in other regulations or as specifically authorized by the Marine Safety Center.

(b) Discharge lines (reproduces 122.6.2(d)). Discharge lines from pressure-relieving safety devices shall be designed to facilitate drainage.

(c) Stop valves. Stop valves between the safety or relief valve and the point of discharge are not permitted, except as specifically provided for in other regulations or as specifically approved by the Marine Safety Center.

(d) Reference. See also §56.07–10(a) and (b) for specific requirements.

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