(3) Air operated remote control valves must be provided with self-indicating lines at the control boards which indicate the desired valve positions, i.e., open or closed.

(h) Suitable drains shall be provided at low points of piping systems.

(i) Valves and cocks shall be located so as to be easily accessible and valves or cocks attached to the shell of the vessel or to sea chests located below the floorplating shall be operable from above the floorplates.

(j) When welded fabrication is employed, a sufficient number of detachable joints shall be provided to facilitate overhauling and maintenance of machinery and appurtenances. The joints shall be located so that adequate space is provided for welding, and the location of the welds shall be indicated on the plans.

(k) Piping, including valves, pipe fittings and flanges, conveying vapors, gases or liquids whose temperature exceeds $150 \, ^\circ F$, shall be suitably insulated where necessary to preclude injury to personnel.

(l) Where pipes are run through dry cargo spaces they must be protected from mechanical injury by a suitable enclosure or other means.

§ 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.
§ 56.50–20 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. 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.

§ 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 thereto 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