§ 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 stress is transmitted to the safety valve body.

(c) Safety or relief valve discharges, when permitted to terminate in the machinery space, shall be led below the floorplates or to a remote position to minimize the hazardous effect of the escaping steam.

(d) The effect of the escape piping on the operation of the relief device shall be considered. The back pressure in the escape piping from the main propulsion steam generator should not exceed 10 percent of the relief device setting unless a compensated relief device is used. Back pressure must be calculated with all relief valves which discharge to a common escape pipe relieving simultaneously at full capacity.

(2) Feed pumps for water tube boilers shall have fresh water connections only. Care shall be taken to prevent the accidental contamination of feed water from salt water or oil systems.

(b) Feed valves. (1) Stop and stop-check valves must be fitted in the main feed line and must be attached as close as possible to drum inlets or to the economizer inlet nozzle on boilers fitted with integral economizers.

(2) Where the installation will not permit the feed stop valve to be attached directly to the drum inlet nozzle on boilers not fitted with economizers, a distance piece may be installed between the stop valve and the inlet nozzle.

(3) Feed stop or stop-check valves may be located near the operating platform on boilers fitted with economizers provided the piping between the valves and the economizer, exclusive of the feed valves and the economizer inlet nozzles, is installed with a minimum of intervening flanged connections.

(4) Auxiliary feed lines shall be fitted with stop valves and stop-check valves. Boilers not having auxiliary feed water nozzles, or where independent auxiliary feed lines are not installed, shall have