

§ 52.01-115

have an audible and a visible high-water-level alarm. The alarm indicators must be located where the boiler is controlled.

[CG FR 68-82, 33 FR 18815, Dec. 18, 1968, as amended by CGD 81-79, 50 FR 9433, Mar. 8, 1985; CGD 83-043, 60 FR 24772, May 10, 1995; USCG-2003-16630, 73 FR 65161, Oct. 31, 2008]

§ 52.01-115 Feedwater supply (modifies PG-61).

Boiler feedwater supply must meet the requirements of PG-61 of section I of the ASME Boiler and Pressure Vessel Code (incorporated by reference; see 46 CFR 52.01-1) and § 56.50-30 of this subchapter.

[USCG-2003-16630, 73 FR 65161, Oct. 31, 2008]

§ 52.01-120 Safety valves and safety relief valves (modifies PG-67 through PG-73).

(a)(1) Boiler safety valves and safety relief valves must be as indicated in PG-67 through PG-73 of section I of the ASME Boiler and Pressure Vessel Code (incorporated by reference; see 46 CFR 52.01-1) except as noted otherwise in this section.

(2) A safety valve must:

(i) Be stamped in accordance with PG-110 of section I of the ASME Boiler and Pressure Vessel Code;

(ii) Have its capacity certified by the National Board of Boiler and Pressure Vessel Inspectors;

(iii) Have a drain opening tapped for not less than 6mm ($\frac{1}{4}$ in.) NPS; and

(iv) Not have threaded inlets for valves larger than 51mm (2 in.) NPS.

(3) On river steam vessels whose boilers are connected in batteries without means of isolating one boiler from another, each battery of boilers shall be treated as a single boiler and equipped with not less than two safety valves of equal size.

(4) (*Modifies PG-70.*) The total rated relieving capacity of drum and superheater safety valves as certified by the valve manufacturer shall not be less than the maximum generating capacity of the boiler which shall be determined and certified by the boiler manufacturer. This capacity shall be in compliance with PG-70 of section I of the ASME Boiler and Pressure Vessel Code.

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(5) In the event the maximum steam generating capacity of the boiler is increased by any means, the relieving capacity of the safety valves shall be checked by an inspector, and, if determined to be necessary, valves of increased relieving capacity shall be installed.

(6) (*Modifies PG-67.*) Drum safety valves shall be set to relieve at a pressure not in excess of that allowed by the Certificate of Inspection. Where for any reason this is lower than the pressure for which the boiler was originally designed and the revised safety valve capacity cannot be recomputed and certified by the valve manufacturer, one of the tests described in PG-70(3) of section I of the ASME Boiler and Pressure Vessel Code shall be conducted in the presence of the Inspector to insure that the relieving capacity is sufficient at the lower pressure.

(7) On new installations the safety valve nominal size for propulsion boilers and superheaters must not be less than 38mm ($1\frac{1}{2}$ in.) nor more than 102mm (4 in.). Safety valves 38mm ($1\frac{1}{2}$ in.) to 114mm ($4\frac{1}{2}$ in.) may be used for replacements on existing boilers. The safety valve size for auxiliary boilers must be between 19mm ($\frac{3}{4}$ in.) and 102mm (4 in.) NPS. The nominal size of a safety valve is the nominal diameter (as defined in 56.07-5(b)) of the inlet opening.

(8) Lever or weighted safety valves now installed may be continued in use and may be repaired, but when renewals are necessary, lever or weighted safety valves shall not be used. All such replacements shall conform to the requirements of this section.

(9) Gags or clamps for holding the safety valve disk on its seat shall be carried on board the vessel at all times.

(10) (*Modifies PG-73.2.*) Cast iron may be used only for caps and lifting bars. When used for these parts, the elongation must be at least 5 percent in 51mm (2 inch) gage length. Nonmetallic material may be used only for gaskets and packing.

(b)(1) (*Modifies PG-68.*) Superheater safety valves shall be as indicated in PG-68 of section I of the ASME Boiler and Pressure Vessel Code except as noted otherwise in this paragraph.

(2) The setting of the superheater safety valve shall not exceed the design pressure of the superheater outlet flange or the main steam piping beyond the superheater. To prevent damage to the superheater, the drum safety valve shall be set at a pressure not less than that of the superheater safety valve setting plus 5 pounds minimum plus approximately the normal load pressure drop through the superheater and associated piping, including the controlled desuperheater if fitted. See also § 52.01-95(b) (1).

(3) Drum pilot actuated superheater safety valves are permitted provided the setting of the pilot valve and superheater safety valve is such that the superheater safety valve will open before the drum safety valve.

(c)(1) (*Modifies PG-71.*) Safety valves shall be installed as indicated in PG-71 of section I of the ASME Boiler and Pressure Vessel Code except as noted otherwise in this paragraph.

(2) The final setting of boiler safety valves shall be checked and adjusted under steam pressure and, if possible, while the boiler is on the line and the steam is at operating temperatures, in the presence of and to the satisfaction of a marine inspector who, upon acceptance, shall seal the valves. This regulation applies to both drum and superheater safety valves of all boilers.

(3) The safety valve body drains required by PG-71 of section I of the ASME Boiler and Pressure Vessel Code shall be run as directly as possible from the body of each boiler safety valve, or the drain from each boiler safety valve may be led to an independent header common only to boiler safety valve drains. No valves of any type shall be installed in the leakoff from drains or drain headers and they shall be led to suitable locations to avoid hazard to personnel.

(d)(1) (*Modifies PG-72.*) The operation of safety valves shall be as indicated in PG-72 of section I of the ASME Boiler and Pressure Vessel Code except as noted in paragraph (d)(2) of this section.

(2) (*Modifies PG-73.*) The lifting device required by PG-73.1.3 of section I of the ASME Boiler and Pressure Vessel Code shall be fitted with suitable relieving gear so arranged that the controls may

be operated from the fireroom or engineroom floor.

[CGFR 68-82, 33 FR 18815, Dec. 18, 1968, as amended by CGD 81-79, 50 FR 9433, Mar. 8, 1985; USCG-2003-16630, 73 FR 65161, Oct. 31, 2008]

§ 52.01-130 Installation.

(a) *Foundations.* (1) Plans showing details of proposed foundations and support for boilers and the proposed means of bracing boilers in the vessel shall be submitted for approval to the Officer in Charge, Marine Inspection, in the district where the installation is being made.

(2) Provision shall be made in foundations for expansion of the boilers when heated.

(3) Boilers shall be provided with chocks to prevent movement in the event of collision unless a bolted or riveted construction satisfactorily provides for this contingency.

(b) *Protection of adjacent structure.* (1) Boilers shall be so placed that all parts are readily accessible for inspection and repair.

(2) In vessels having a double bottom or other extensive surfaces directly below the boiler, the distance between such surface and a boiler shall in no case be less than 18 inches at the lowest part.

(3) In certain types of vessels where the boiler foundation forms the ashpit, such foundations shall be efficiently ventilated, except in cases where the ashpit is partially filled with water at all times.

(4) The pans of oil-burning, watertube boilers shall be arranged to prevent oil from leaking into the bilges and shall be lined with firebrick or other heat-resisting material.

(5) The distance between a boiler and a compartment containing fuel oil shall not be less than 24 inches at the back end of a boiler and 18 inches elsewhere, except that for a cylindrical part of a boiler or a knuckle in the casing of a water-tube boiler, these distances may be reduced to 18 inches, provided all parts are readily accessible for inspection and repair.

(6) All oil-burning boilers shall be provided with oiltight drip pans under the burners and elsewhere as necessary to prevent oil draining into the bilges.