drains, and steam gages may be installed on the float chamber or on the pipes connecting the float chamber to the boiler. The water inlet valve must not feed water into the boiler through the float chamber. The boiler feed piping must comply with the applicable requirements of §56.50–30 of this chapter.


Subpart 63.25—Requirements for Specific Types of Automatic Auxiliary Boilers

§ 63.25–1 Small automatic auxiliary boilers.

Small automatic auxiliary boilers defined as having heat-input ratings of 400,000 Btu/hr. or less (117 kilowatts or less) must also meet the following requirements.

(a) Small automatic auxiliary boilers must be equipped with a visual indicator which indicates when the low water cutoff has activated.

(b) A prepurge period of a sufficient duration to ensure at least four changes of air in the combustion chamber and stack, but not less than 15 seconds must be provided. Ignition must occur only before or simultaneously with the opening of the fuel oil valve.


§ 63.25–3 Electric hot water supply boilers.

(a) Electric hot water supply boilers that have a capacity not greater than 454 liters (120 U.S. gallons), a heat input rate not greater than 200,000 Btu/hr. (58.6 kilowatts), meet the requirements of UL 174 or UL 1453 (both incorporated by reference, see 46 CFR 63.05–1) and are protected by the relief device(s) required in 46 CFR 53.05–2 do not have to meet any other requirements of this section except the periodic testing required by paragraph (j) of this section. Electric hot water supply boilers that meet the requirements of UL 174 may have temperature-pressure relief valves that meet the requirements of ANSI/AGA Z21.22 (incorporated by reference, see 46 CFR 63.05–1) in lieu of 46 CFR subpart 53.05.

(b) Each hot water supply boiler must be constructed in accordance with the applicable requirements of part 52 or part 53 of this chapter.

(c) Branch circuit conductors for hot water supply boilers which have a capacity not greater than 454 liters (120 U.S. gallons) must have a current carrying capacity of not less than 100 percent of the current rating of the appliance. Branch circuit conductors for hot water supply boilers with capacities of more than 454 liters (120 U.S. gallons) must have a current carrying capacity of not less than 125 percent of the current rating of the appliance.

(d) Heating elements must be insulated electrically from the water being heated, guarded against mechanical injury and contact with outside objects, and securely supported. Consideration must be given to sagging, opening, and other adverse conditions of the elements resulting from continuous heating, and flexion of supports and wiring due to alternate heating and cooling. Wrap-around elements must be secured in a manner which prevents loosening.

(e) Iron and steel parts must be protected against corrosion by enameling, galvanizing, or plating. Iron and steel storage tanks having a wall thickness less than 0.4mm (¼-inch) must have the inside surface protected against corrosion.
§ 63.25–5 Fired thermal fluid heaters.
(a) Construction. Fired thermal fluid heaters must meet the requirements of part 52 of this chapter, as applicable.
(b) Controls. Fired thermal fluid heaters must have a low fluid level cutout device or a low flow device. When the rate of fluid flow through the heating coils is insufficient to ensure proper heat transfer, the device must cut off the fuel supply to the burner. If the fluid temperature exceeds the designed maximum operating temperature, a high temperature limit device must cut off the fuel supply to the burner. These devices must be of the manual reset type.

§ 63.25–7 Exhaust gas boilers.
(a) Construction. An auxiliary exhaust gas boiler must meet the applicable construction requirements of part 52 or part 53 of this chapter as determined from § 54.01–5, Table 54.01–5(A) of this chapter.
(b) Controls. Each drum type exhaust gas steam boiler must have a feed water control system. The system must automatically supply the required amount of feed water and maintain it at the proper level. For boilers without a fixed water level, the control system must supply the feed water at a rate sufficient to ensure proper heat transfer. The system must adequately fill the boiler when cold.
(c) Alarms. When a condition arises which results in inadequate heat transfer, a high temperature alarm or low flow alarm must be activated. An audible alarm must automatically sound, and a visual indicator must indicate when the fluid temperature exceeds the maximum operating temperature or when the fluid/steam flowing through the heat exchanger is insufficient to ensure proper heat transfer. Additionally, an audible alarm must automatically sound, and a visual indicator must indicate when a soot fire is present in the exhaust gas boiler’s uptake.