ASME Code. Table 54.01–5(a) of this subchapter gives a breakdown by parts in this subchapter of the regulations governing various types of pressure vessels and boilers.

(b) (Modifies HG–100.) The requirements of Part HG of section IV, Heating Boilers, of the ASME Code shall be used except as noted otherwise in this part.

[CGFR 68–82, 33 FR 18826, Dec. 18, 1968, as amended by CGD 81–79, 50 FR 9435, Mar. 8, 1985]

§ 53.01–10 Service restrictions and exceptions (replaces HG–101).

(a) *General.* The service restrictions and exceptions shall be as indicated in this section in lieu of the requirements in HG–101 of the ASME Code.

(b) *Service restrictions.* (1) Boilers of wrought materials shall be restricted to a maximum of 103 kPa gage (15 psig) for steam and a maximum of 689 kPa (100 psig) or 121 °C (250 °F) for hot water. If operating conditions exceed these limits, design and fabrications shall be in accordance with part 52 of this subchapter.

(2) Boilers of cast iron materials shall be restricted to a maximum of 103 kPa gage (15 psig) for steam and to a maximum of 206 kPa gage (30 psig) or 121 °C (250 °F) for hot water.

(c) *Hot water supply boilers.* (1) Electrically fired hot water supply boilers which have a capacity not greater than 454 liters (120 gallons), a heat input not greater than 58.6 kilowatts (200,000 B.t.u. per hour), and are listed as approved under Underwriters' Laboratories Standard 174 or 1453 are exempted from the requirements of this part provided they are protected by a pressure relief device. This relief device need not comply with § 53.05–2.

(2) Oil fired hot water supply boilers shall not be exempted from the requirements of this part on the basis of size or heat input.

(d) Exhaust gas type boilers shall be restricted to a working pressure equal to or less than 103 kPa gage (15 psig) and an operating temperature equal to or less than 454 °C (850 °F). The design temperature of parts exposed to the exhaust gas must be the maximum temperature that could normally be produced by the source of exhaust gas. This temperature shall be verified by testing or by the manufacturer of the engine or other equipment producing the exhaust.

(e) Heating boilers whose operating conditions are within the service restrictions of § 53.01–10(b)(1) may be constructed in accordance with section I of the ASME Code. In addition, these heating boilers must:

(1) Be stamped with the appropriate ASME Code symbol in accordance with PG–104 through PG–113 of the ASME Code;

(2) Meet the service restrictions of § 53.01–10(b)(2) if made of cast iron;

(3) Have safety valves which meet the requirements of § 52.01–120 of this subchapter;

(4) If a hot water supply boiler, have a temperature relief valve or a pressure-temperature relief valve in accordance with § 53.05–2(c);

(5) If automatically controlled, meet the applicable requirements in part 63 of this subchapter; and

(6) Meet the inspection and test requirements of § 53.10–3.

(f) *Controls and miscellaneous accessories.* Refer to part 63 of this subchapter for the requirements governing controls and miscellaneous accessories.

[CGFR 68–82, 33 FR 18826, Dec. 18, 1968, as amended by CGD 81–79, 50 FR 9435, Mar. 8, 1985]

Subpart 53.05—Pressure Relieving Devices (Article 4)

SOURCE: CGD 81–79, 50 FR 9435, Mar. 8, 1985, unless otherwise noted.

§ 53.05–1 Safety valve requirements for steam boilers (modifies HG–400 and HG–401).

(a) The pressure relief valve requirements and the safety valve requirements for steam boilers must be as indicated in HG–400 and HG–401 except as noted otherwise in this section.

(b) Each steam boiler must have at least one safety valve.

§ 53.05–2 Relief valve requirements for hot water boilers (modifies HG–400.2).

(a) The relief valve requirements for hot water boilers must be as indicated in article 4 of section IV of the ASME